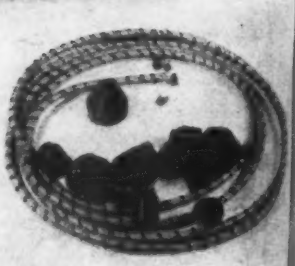
May 1930
MOTOR BOATING
35 Cents
The Yachtsmen's Magazine
OSPREY

She's Ready!

No last year's *leaky* spark plug wires aboard!



Double Protection!

G-E *Lacquered* Ignition Cable guards your spark supply—G-E Textolite Caps snug fitting over every terminal, make exposed engines splash-proof. No more wet plugs.

WHEN old spark plug wires are discarded in the spring overhaul—replace them with G-E *Lacquered* Ignition Cables. Many engine ills disappear. Your boat is *ready* for a summer's service.

No longer is the motor robbed of power by wires that *look* sound but actually leak current . . . leaving the engine spark-starved, sluggish, quick to foul up because of poor combustion.

G-E *Lacquered* Ignition Cables do not weaken under engine heat or the gnawing of oil, gasoline, spray and weather. You can rely on them anywhere.

Many coats of tough, elastic lacquer over braid and rubber make the cable *endure*. It controls high voltages—rated in *thousands* of volts—that must travel to the plugs.

You can get G-E *Lacquered* Ignition Cables and Textolite Caps—for terminals—everywhere. G-E Merchandise Distributors can supply you, or use the coupon.

. . . . Want New Life For *Your* Motor? . . . .

GENERAL ELECTRIC

MERCHANDISE PRODUCTS

MERCHANDISE DEPARTMENT • GENERAL ELECTRIC COMPANY • BRIDGEPORT, CONNECTICUT

Section A-535, Merchandise Department,
General Electric Company, Bridgeport, Connecticut

Please tell me about G-E Lacquered Ignition Cables and Textolite Caps.

Name----------

Address----------

These Electric-starting OUTBOARD RUNABOUTS

Let You Motor on Water at Motor Car Speed

Logs, Rocks, Snags, Shoals—nothing can stop their tilting propellers

Here is a runabout, powered with an electric-starting outboard motor, costing but a fraction as much as comparable inboard motor boats; yet it will give you unlimited cruising and exploring range, because its tilting propeller rides safely over shallow water obstructions.

Drive it into reedy shoals where fish are biting. Steer it up a winding river where Nature is at her loveliest. Beach it where you please to disembark.

It will give you incomparably quicker steering, sharper turns, for a touch of the wheel turns the whirling propeller instead of a trailing rudder. That means more fun, more safety on the open water.

The Johnson Aquaflyer has the luxury of a fine motor car, the trim, racy lines and color of a swanky roadster, and true speed up to 25 m. p. h.

The Sea-Horse motor starts at the touch of a button and is so simple a child can operate it. A hatch in the stern conceals and silences it and makes the interior immaculate for sport clothes and as roomy as inboard motor boats six feet longer!

Find out more about this new-day motor boat. Dealers in all parts of the country offer it on partial payment terms. Or write for catalog with color illustrations and specifications.

All dealers carry first-aid service parts. Stations for complete service in all parts of the country. Boats range from $270 to $1065, complete with famous Sea-Horse Motors. Motors alone priced from $125 to $395. All prices f. o. b. factory. Partial payment terms.

JOHNSON MOTOR COMPANY, 3006 Pershing Rd., Waukegan, Ill. *In Canada:* Canadian Johnson Motor Co., Ltd., Peterboro, Ont. *World's Largest Manufacturer of Outboard Motors and Matched Units*

In the foreground, the 20-foot Aquaflyer Family Runabout. Complete with Electric-starting Sea-Horse "32." $1065. In the distance, 15-foot Utility B Boat, with Sea-Horse "12," $470.

JOHNSON
Matched UNITS
SEA-HORSES & BOATS

Electric-Starting Sea-Horse 24" $350

Other motors $125 to $395

The 17½-foot De Luxe Runabout

of seamless, waterproof Sealite construction, double cockpits. Price, including electric-starting motor, $925 to $995, depending on motor model.

MOTOR BOATING, May, 1930. Volume XLV, No. 5. Published monthly at 57th Street at Eighth Avenue, New York, U. S. A., by International Magazine Co., Inc. Yearly subscription price: United States, $3.00; Canada, $3.00; Foreign, $4.00. Entered as second-class matter April 15, 1925, at the Post Office at New York, under the act of March 3, 1879. (Printed in U. S. A.)

EDWARD SMITH Yacht Deck Buff *laughs* at waves, wind and wear, heat that blisters and frost that cracks. Will not whiten, chalk or bleach out. Extremely hard, yet always elastic, even when used on canvas decks. Put your deck under its protection and forget the elements just as thousands upon thousands of experienced yachtsmen have done for over a hundred years. For any surface you really value, there is an Edward Smith Paint or Varnish. Also makers of bottom green, deck buff, aquatite spar, spar coating. Send for literature and color charts.

EVERY user of Edward Smith Paints and Varnishes is a voluntary member of our sales force. Most of them we've never met. But they sell more of our products than we sell ourselves. In fact, if all non-users were brought in contact with actual users, almost every intelligent boat owner's craft would be finished with Edward Smith Paints and Varnishes!

EDWARD SMITH & COMPANY

LONG ISLAND CITY
NEW YORK

Makers of Marine Paints and Varnishes since 1827

Advertising index will be found on 3rd last page

"We urge SEA-LYON owners to use DUPLEX MARINE ENGINE OIL exclusively"

"WE continue using Duplex Marine Engine Oil exclusively in 1930 as for the past four years, because we know it gives maximum power and speed, clean combustion chambers and freedom from valve grinding. We want SEA-LYON owners to be free from annoyance and trouble—we know that the use of DUPLEX MARINE ENGINE OIL disposes of the question of engine performance."

(Signed) HOWARD W. LYON

Made by the
ENTERPRISE OIL COMPANY
Incorporated
Buffalo, New York

***Makers also of* KASSON WATERPROOF GREASE**

WHOLESALE DISTRICT DISTRIBUTORS IN

Baltimore Boston Chicago Cleveland Detroit Houston Miami New Orleans New York Palm Beach Philadelphia St. Louis

Pacific Coast Distributors: Portland, *Beebe & Co.;* San Diego, *R. V. Morris & Co.;* San Francisco, *B. H. Hebgen Co.;* Seattle, *Sunde & d'Evers Co.;* Vancouver, *Hoffars, Ltd.;* Wilmington (Calif.), *Ets—Hokin & Galvan*

DEALERS WHEREVER BOATS FLOAT

Accurate To Within 10 R.P.M.

Pioneer Tachometers do more than merely tell what the engine is doing and indicate how fast the boat is traveling.

Since they are accurate to 10 R.P.M., Pioneer Tachometers make it possible, in twin screw boats to maintain the engine speeds equal. This prevents undue vibration, helps keep a straight course, and increases speed by eliminating drag of rudder.

Pioneer Tachometers are steady even when driven by unusually long lengths of flexible shafting. Like all Pioneer Marine Instruments, Pioneer Tachometers are individually calibrated; and they are immune to climatic changes, dampness, salt spray, low speed, overspeed, and vibration. Ball bearings reduce friction.

Pioneer Tachometers are available in four standard ranges; 500 to 2,000, 500 to 2,500, 500 to 3,000, 500 to 3,600 revolutions per minute—and in special ranges and ratios to meet every marine requirement.

The full line of Pioneer Marine Instruments includes:

Air Speed Indicator . . . Ammeter . . . Barometer . . . Clock . . . Fuel Flow Meter . . . Fuel Level Gauge . . . Fuel Pressure Gauge . . . Fuel Strainer . . . Hand Fuel Pump . . . Navigation Watches . . . Octant . . . Oil Pressure Gauge . . . Sextant . . . Tachometer . . . Thermometer.

Write for our Marine Instrument catalogue.

PIONEER INSTRUMENT COMPANY

DIVISION OF BENDIX AVIATION CORPORATION

754 LEXINGTON AVENUE - BROOKLYN NEW YORK

509 DEARBORN BLDG., DEARBORN • 639 SO. SAN PEDRO, LOS ANGELES • 15 SPEAR ST., SAN FRANCISCO • 420 W. DOUGLAS ST., WICHITA • 5034 W 63RD ST., CHICAGO
227 SUSSEX ST., OTTAWA • STERNPLATZ 13 JOHANNISTHAL-BERLIN • GENERAL EUROPEAN REPRESENTATIVE, M. CALDERARA, 11 BIS RUE MONTAIGNE, PARIS, FRANCE

Advertising index will be found on 3rd last page

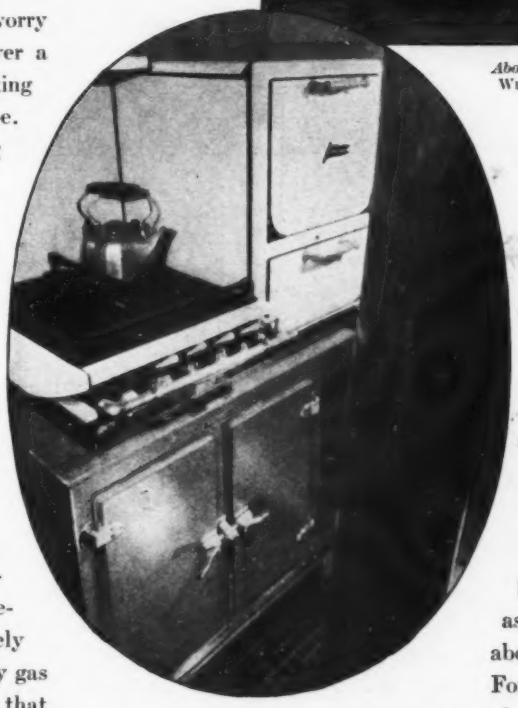
A tiny gas flame takes *the place of all moving parts*

SILENT as an Anchor Light

Plenty of ice cubes, constant steady cold with the Electrolux marine refrigerator, but never a whisper of sound

Above—"Lady Lou," 55-ft. ketch. Designed by Wm. H. Hand, built by Hodgson, owned by N. R. Seeley.

• • •



At left—A typical Electrolux marine installation. Combination refrigerator and stove aboard the "Lady Lou."

CAST OFF! With never a worry about "icing up." Never a hitch. Nor bother, later, taking on the daily supply of ice. Here's constant refrigerating cold . . . pure, sparkling ice cubes . . . for from 10¢ to 25¢ a day . . . for as long as you're afloat.

Food stays fresh longer in Electrolux, too. Now the larder can be more fully provisioned. With fewer replenishings during the cruise.

And at evening. When you drop anchor in some quiet harbor. No sound from Electrolux will disturb your sleep. Because Electrolux is absolutely silent. Nothing to it but a tiny gas flame and a liquid refrigerant that is circulated by heat. A hermetically sealed refrigerant in the same welded-steel unit that has made Electrolux standard in our finest homes and apartments.

Electrolux marine refrigerator comes to you fully equipped. In 8 different models. Suitable for every size and type of yacht. With combination refrigerator and stove units to conserve galley space. Ready for immediate installation. And can be operated on any of the approved bottled gas systems.

Prominent boat builders and naval architects are choosing Electrolux for their newest craft. Yachtsmen from Maine to Florida find Electrolux the ONLY automatic refrigerator that offers the three distinct advantages . . . silence, economy of operation, dependability. And without increasing the electric plant. So don't wait. Keep your galley as up-to-date as your rigging. See about Electrolux today.

For particulars write, wire or telephone E. J. Willis Co., distributors of the Marine Electrolux. Address, 85 Chambers Street, New York, N.Y. Phone, Worth 6933.

ELECTROLUX

THE *Gas* REFRIGERATOR

THE ELCO FORTY-TWO FOOT CRUISER

Six models . . .

Each Elco Cruiser fills a definite need, and from keel to cabin-roof is designed accordingly. . . . Elco does not build three or four "models" upon a single hull, because such methods must result in makeshifts. . . . For instance, between the 38-foot and 42-foot Cruisers there is little difference in size. Yet they differ widely in type. The Thirty-eight, a bridge-deck, double cabin boat, sleeping six, is designed to provide the greatest possible accommodation and privacy in a cruiser that can be easily handled by the owner. The Forty-two accommodates the same size owner's party, but while the boat is completely under the control of one person, quarters are provided for a paid hand. And, in recognition of the wants of owners who wish to cruise in this manner, additional luxuries and re-

ELCO CRUISERS ARE ALSO DISPLAYED, SOLD AND SERVICED BY:

Port Elco of Boston, 126 State Street, Boston, Mass.

◆

Washington Motor Boat Sales Agency, 1344 Connecticut Avenue, Washington, D. C.

◆

Ludington Aircraft, Inc., Atlantic Building, Philadelphia, Pa.

◆

Yacht and Motor Sales Corp., Wilmington, Calif.

◆

Eastern Marine & Yacht Co., 354 Howard Avenue, Bridgeport, Conn.

◆

Roy M. Brewster, Bay Shore, Long Island, N. Y.

◆

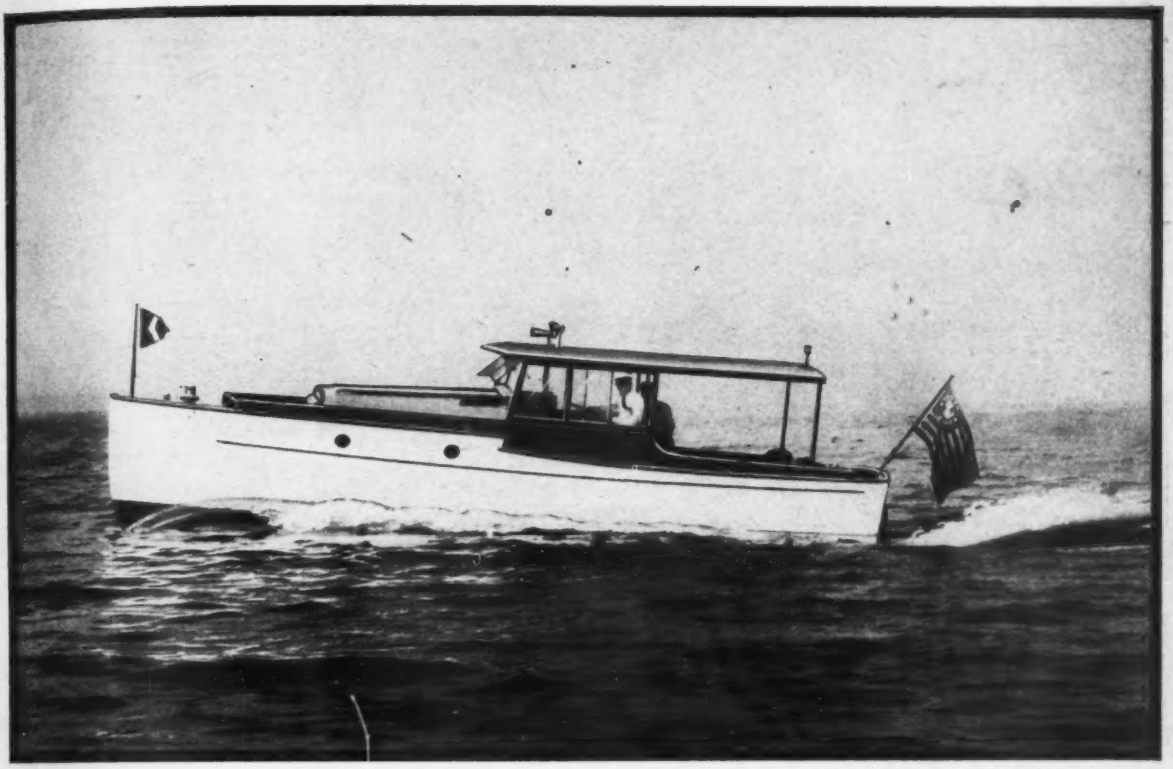
W. J. H. Dyer, East Greenwich, R. I.

◆

Frank D. Homan, Amityville, Long Island.

Elco CRUISERS

Advertising index will be found on 3rd last page



The Elco Thirty Foot Veedette

six especially designed hulls

finements are included in the design. . . . If these two models were built upon the same hull, one, at least, would have to be a mongrel. As it is, both are thoroughbreds. . . . Similarly, the 27-foot Marinette is the smallest and lowest-priced practicable cruiser. Comfort, seaworthiness and economy of operation are the primary considerations in its design. The 30-foot Veedette is a sportsman's boat. It has a V-bottom construction for speed. With a bow-cockpit accessible from both deck and cabin, and an exceptionally roomy after-cockpit, it combines the best features of runabout and cruiser. It is obvious that these two boats could not conscientiously be built upon the same hull. . . . The purchaser of an Elco Cruiser becomes the owner of a boat that fulfils completely a specific set of requirements.

Elco
CRUISERS

VISIT PORT ELCO

You are invited to visit Port Elco, 247 Park Avenue (at 46th Street), New York City, where the entire Elco Fleet is on permanent display. Or, address Dept. MBG, Port Elco, for full particulars and descriptive literature. (Plant and Marine Basin at Bayonne, N. J.)

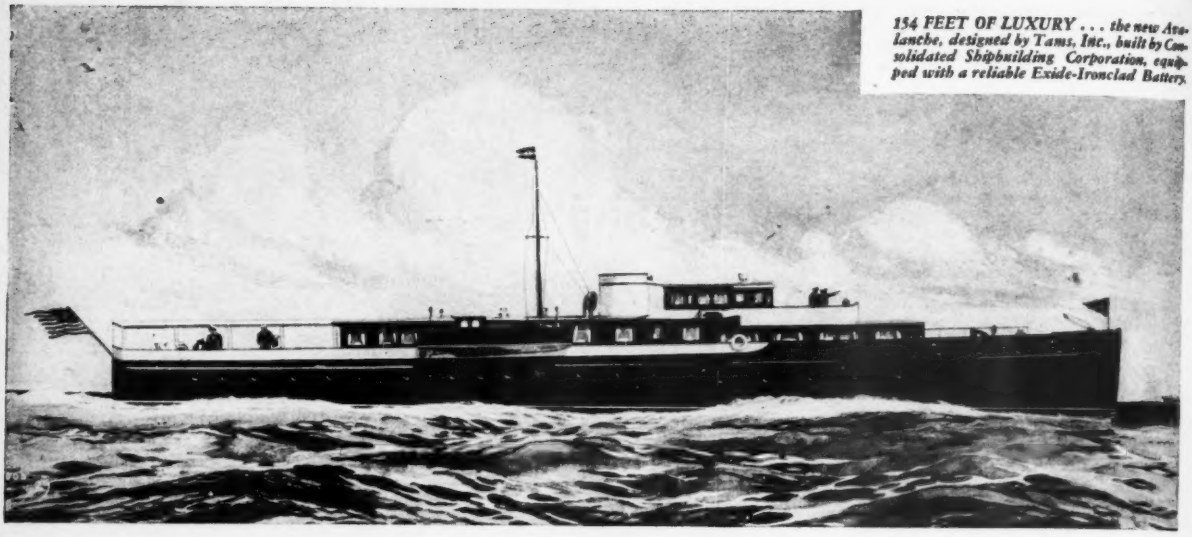
◆

THE ELCO FLEET

Twenty-seven Foot Marinette	$3,475
Thirty Foot Veedette	5,750
Thirty-five Foot Cruisette	7,750
Thirty-eight Foot Cruiser	11,850
Forty-two Foot Cruiser	17,500
Fifty Foot Motor Yacht	26,500

◆

(Those wishing to purchase Elco Cruisers out of income may distribute payments over one year.)



154 FEET OF LUXURY . . . the new Avalanche, designed by Tams, Inc., built by Consolidated Shipbuilding Corporation, equipped with a reliable Exide-Ironclad Battery.

Another Outstanding New Yacht

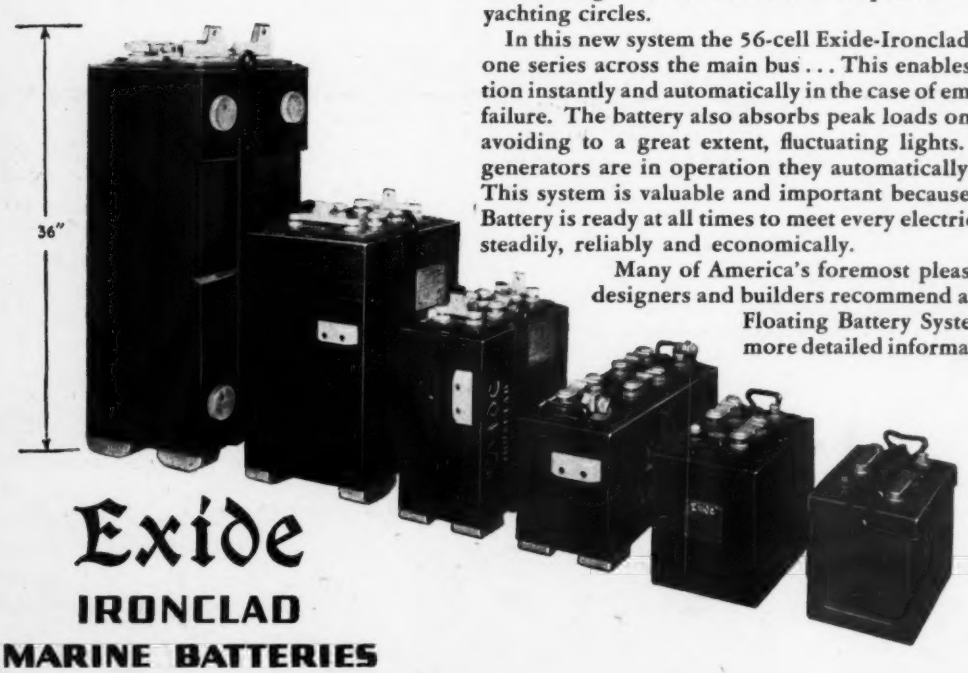
relies on

THE EXIDE FLOATING BATTERY SYSTEM

THE *Avalanche,* like the majority of pleasure craft over 100 feet launched in 1929, is equipped with Exide Batteries. On this outstanding boat the batteries are operated in a manner new in yachting circles.

In this new system the 56-cell Exide-Ironclad Battery is floated in one series across the main bus . . . This enables the battery to function instantly and automatically in the case of emergency—generator failure. The battery also absorbs peak loads on the generator, thus avoiding to a great extent, fluctuating lights. And whenever the generators are in operation they automatically charge the battery. This system is valuable and important because the Exide-Ironclad Battery is ready at all times to meet every electrical need; to function steadily, reliably and economically.

Many of America's foremost pleasure craft architects, designers and builders recommend and specify the Exide Floating Battery System. Write today for more detailed information. No obligation.



FOR EVERY CRAFT, from the smallest speed boat to the largest yacht, there's an Exide Battery designed to fill electrical requirements.

Exide
IRONCLAD
MARINE BATTERIES

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia

THE WORLD'S LARGEST MANUFACTURERS OF STORAGE BATTERIES FOR EVERY PURPOSE

Exide Batteries of Canada, Limited, Toronto

Advertising index will be found on 3rd last page

At the

NEW YORK AIRCRAFT SALON

Madison Square Garden . . . May 3rd to 10th

look for the Huntington "Governor-Ship" . . . the cabin monoplane that introduces style and luxury into individual air-travel.

Luxury spreads its wings

Speed no longer means discomfort. The Huntington "Governor-Ship" transports its two passengers at 100 miles per hour . . . *in luxurious convenience.* They sit companionably side-by-side in a roomy, wide-vision cabin. Technical details are right, because the ship is built by Huntington ✓ pioneer in American aeronautics.

Appointments by Paul Riker, famous for his yacht and motor-boat interiors. Upholstery, wide doors, aviation hardware by English & Mercer, custom color schemes, Goodyear air wheels —all contribute to the sheer pleasure of air-travel, for business or sport. Powered by Warner-Scarab, and *completely* equipped to fly away. Write for handsomely illustrated brochure.

HUNTINGTON AIRCRAFT CORPORATION, STRATFORD, CONNECTICUT

HUNTINGTON

Motor-boat dealers are invited to write for franchise terms. Huntington Aircraft Corporation, Stratford, Connecticut.

LAUGH THIS OFF— IN A BOAT

It's going to be hot on shore . . . and dusty . . . highways more crowded. Detour signs coming out of winter storage. Rural constables tuning up their motorcycles. Two traffic signals blooming where one was damned but yesteryear.

But on the water—there's freedom—sweet cool breezes—a trackless world of romance and adventure. It's yours—all yours—if you have a boat. A bitter mocker if you haven't.

And if you would enjoy it to the utmost, choose your boat with care. Make certain that you can be proud of the boat you buy, that it will be the envy of all beholders.

We suggest a Gar Wood Boat, for there can be no finer runabout than those created by the Miss America craftsmen, and no other can have such a tradition. You will find among the fourteen new models, just the boat that suits your individual taste and needs. Open, enclosed or convertible, 22 to 33 feet, 30 miles per hour to 55, $2,250 to $12,950, all Gar Wood Boats are built to the same standards of excellence. Famous for their "soft-riding", you will find them equally outstanding in seaworthiness.

You will want that boat mighty soon now. So you may not be disappointed on delivery, we suggest you see the nearest Gar Wood dealer right away or wire us for information.

GAR WOOD INC.

THE GREATEST NAME IN MOTORBOATING

212 River Road Marysville, Mich.

Showroom and Factory Branch, 1858 Broadway, New York City

Advertising index will be found on 3rd last page

WROUGH
For Years of Use
for Staunchness!
and Keener Cruis
Comforts!!
DART
DART BOATS, INC.
ROBINSON Seagull CRUISERS
ROBINSON MARINE CONSTRUCTION CO., BENTON HARBOR, MICHIGAN
GAR WOOD INC.
DAWN
TWIN-SCREW CRUISERS
A Tribute to Consolidated Products and Consolidated Salesmanship.
Consolidated marine panels are used by these outstanding builders of standard boats. Chase-Emerson, Dawn, Dart, GarWood, Hacker, Lyon-Tuttle, Steck, Robinson and Wheeler.
HACKER BOAT COMP
A. B. CHASE-EMERSON CORP.
OFFICES: 11 WEST 42ND ST., N. Y. C. FACTORY: NORWALK, OHIO
PLAYMATES
HACKERCRAF
11 Beautiful Model
Dee Wite
"Good-bye Winter"
"I'm getting a New Playmate this Spring"
STANDARD MODELS
RD W. LYON, Inc.

SEA LYON

SERVING YOUR EVERY NEED

ONE of the six new Sea Lyon models is made for you—fits your requirements precisely—as to speed, comfort, accommodations, sea-ability, price. No matter which model you buy you will receive an extra dividend on your investment—that joyous feeling of having secured the utmost in quality and value.

The Sea Lyon plant with complete service station is located in New York City. The advantages to you are obvious.

HOWARD W.

HOTEL BARCLAY · 532 LEXINGTON AVE., AT

Advertising index will be found on 3rd last page

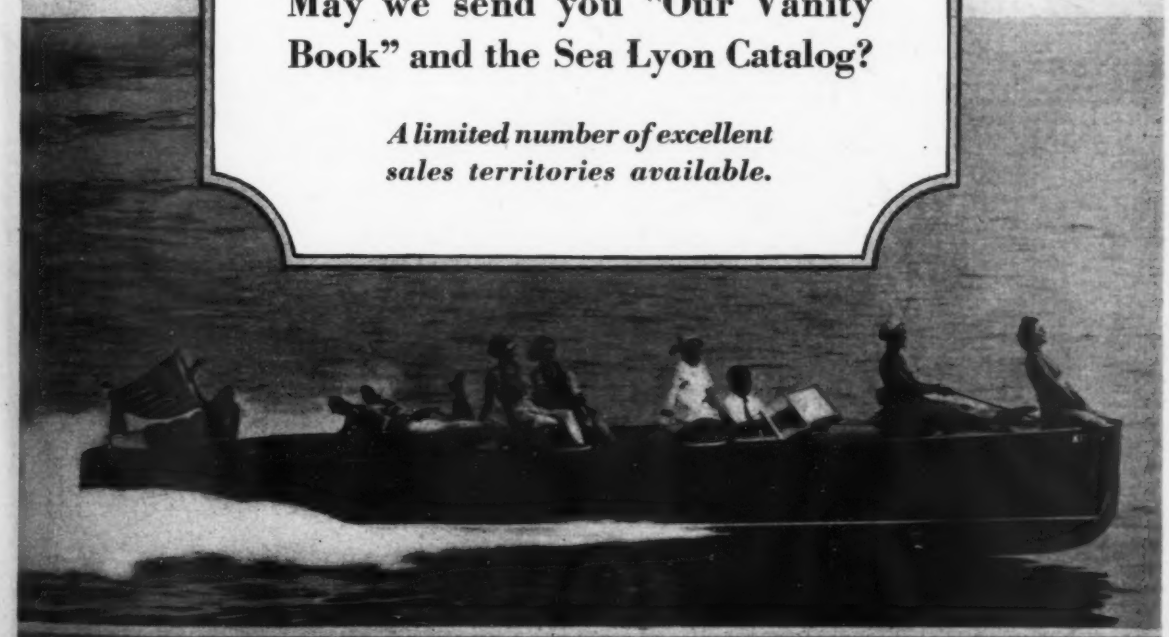
SEA LYON

ALTHOUGH 80% of Sea Lyon owners have given up other makes of boats to own a Sea Lyon, we have never heard of a single owner giving up a Sea Lyon for some other make of boat.

SEA LYON "30"	$2,675	SEA LYON "45"	$5,950
SEA LYON "35"	2,975	SEA LYON "46"	6,500
SEA LYON "40"	4,650	SEA LYON "60"	12,500

May we send you "Our Vanity Book" and the Sea Lyon Catalog?

A limited number of excellent sales territories available.

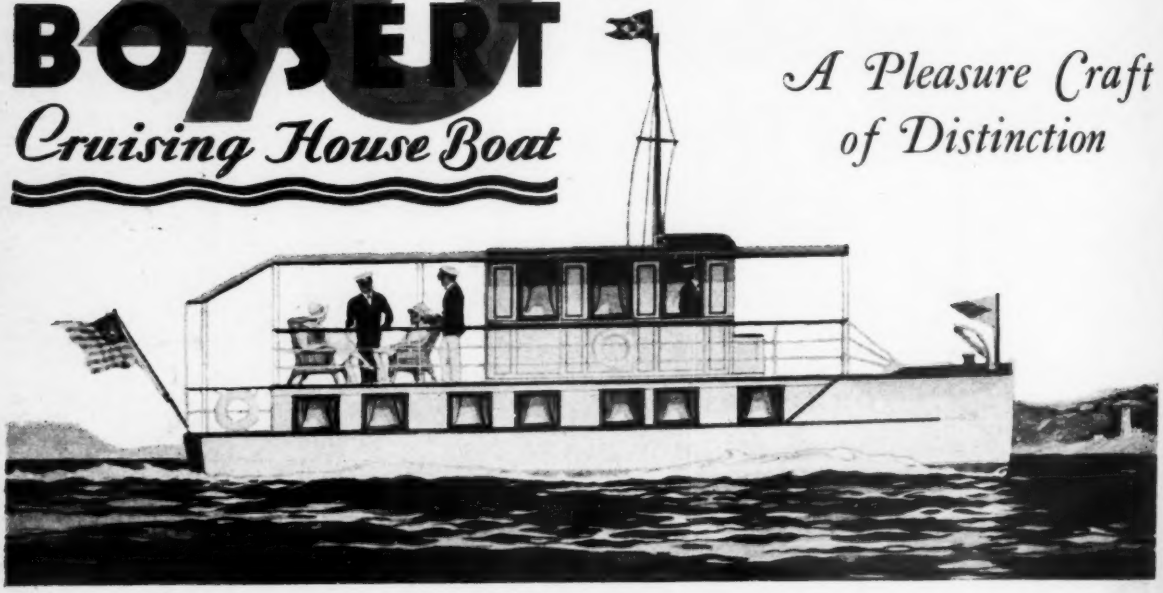


LYON, INC.

138th ST., WICKERSHAM 6132-3 · NEW YORK

40 BOSSERT
Cruising House Boat

A Pleasure Craft of Distinction



This Summer
LIVE on the Water

YOU can now enjoy the comforts of a full size, completely equipped house boat, designed by Henry J. Gielow, Inc., at an unbelievably low price. Imagine these accommodations on a forty foot craft—a large double stateroom with two berths; single stateroom with double berth; spacious dining saloon which also serves as a stateroom sleeping four; enclosed galley and extra berth for paid hand or additional guest; generous size deck house and roomy canopy covered lounging deck. Only the best practices of marine construction and selected materials are used in the Bossert 40. All controls are centered on bridge for one-man operation. Power is furnished by a six-cylinder 50 H.P. Red Wing gear reduction engine, giving ample cruising speed to take you wherever you wish to go.

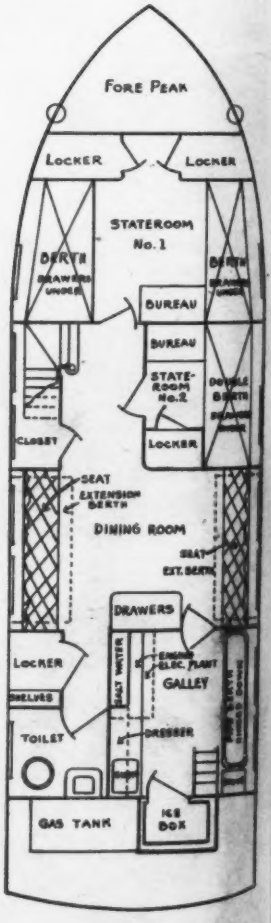
But, best of all is the low price of

$8,500.—

value never before offered by any builder.

Write today for full particulars. Place your order early to insure delivery in time for full season's use.

LOUIS BOSSERT & SONS
INCORPORATED
Boat Division
Bossert Terminal
Grand St. and Newtown Creek
Brooklyn, N. Y.



Advertising index will be found on 3rd last page

SUN . . . . . SEA SUMMER . . . . and a MOTH

ARCHIE BROWN, JR.—then of Groton, soon of Harvard, was pilot. Archie Brown, Sr., was ballast and logger—not too heavy a father, and a renowned architect. The good ship "Banana Oil" was a Moth seaplane—equipped with Edo floats. And what they did in nine little days last summer is told as a hint to you.

Climbing from Southampton in a light southwest breeze, headed for the tip of Cape Cod... Shelter Island and a flock of sailboats against the wrinkled sea—Fisher's—Newport, and Bailey's Beach panting in bathing suits—Cape Cod Canal like a sliver of glass—Cape Cod Bay and across in 20 minutes... Truro, an hour and three-quarters after take-off... As Archie, Sr., wrote in the log, "I ask you!"

Up along the coast—no worry about landing fields . . . Portsmouth—Ogunquit—Wells Beach River at noon for a swell steak—Isle-a-Haut—Dark Harbor—Mt. Desert—Asheville, Maine... for a day and a half. St. Andrews, N. B.—an hour later St. John—with a smart sea breeze . . . four flying hours from Southampton!

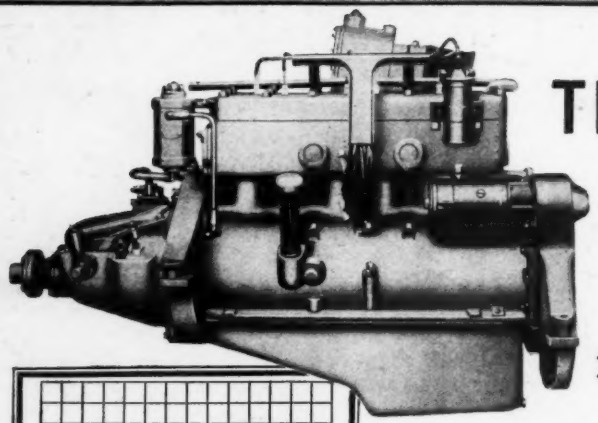
Inland up the St. John River to Fredericton for lunch—"nice plane, old top," says the logger—

follow the stream for a casual 150 miles, explore Grand Lake, get supper of pork and beans at a farmhouse—full moon, "what a marvelous joint!"—St. John again next day and down to Bar Harbor in 1¾ hours—Asheville to Southampton in 5 more, stopping at Portland and Block Island for gas..."Easy as pie to fly it—Saving hours on a stuffy train!" Small wonder Archie Sr., said, "This trip is more fun than anything I ever did."

Tomorrow—such trips will be commonplace. Today—they're still adventure... How long will you wait for yours? A Moth can now be yours for $3960—for booklet, write Dept. M- 53.

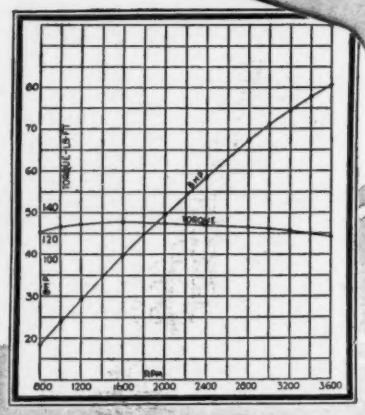
D.H. Gipsy MOTH

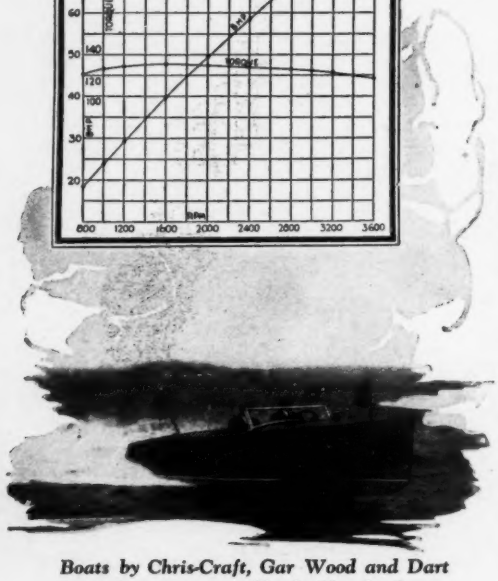
MOTH AIRCRAFT CORPORATION
Division of CURTISS-WRIGHT
27 West 57th Street • New York



THE CHRYSLER CROWN

3⅛" bore x 4⅛" stroke—6-cylinder





Boats by Chris-Craft, Gar Wood and Dart Boats, Inc., are powered by the Chrysler Crown

Designed and built especially for small, fast runabouts up to approximately 23 feet in length, the new Chrysler Crown marine engine already has been adopted as standard equipment by leading builders.

Despite its small bore and stroke, the Crown develops a full 75 H.P. at 3200 R.P.M. It is smooth and vibrationless at any speed—low in consumption of fuel and oil—and entirely dependable at all times.

Features include down-draft carburetion—positive gasoline pump—hot spot manifold—oil cooler—rugged helical timing gears, and Chrysler-built reverse gear with outside reverse band adjustment.

MARINE ENGINE DIVISION, CHRYSLER CORPORATION, DETROIT, MICHIGAN

DISTRIBUTORS

BOARDMAN & FLOWER
San Francisco, Cal.

SEATTLE MARINE SUPPLY CO.
Seattle, Washington

YACHT & MOTOR SALES CORPORATION
Wilmington, California

LECHENGER MARINE COMPANY
Houston, Texas

NOYES MARINE SALES
Boston, Mass.

MARINE EQUIPMENT & SUPPLY COMPANY, INC., Philadelphia, Pa.

J. H. HUTCHINSON, Alexandria Bay, N. Y.

SERVICE STATIONS

CONSOLIDATED SHIPBUILDING CORPORATION
New York City

WHEELER SHIPYARD
Brooklyn, N. Y.

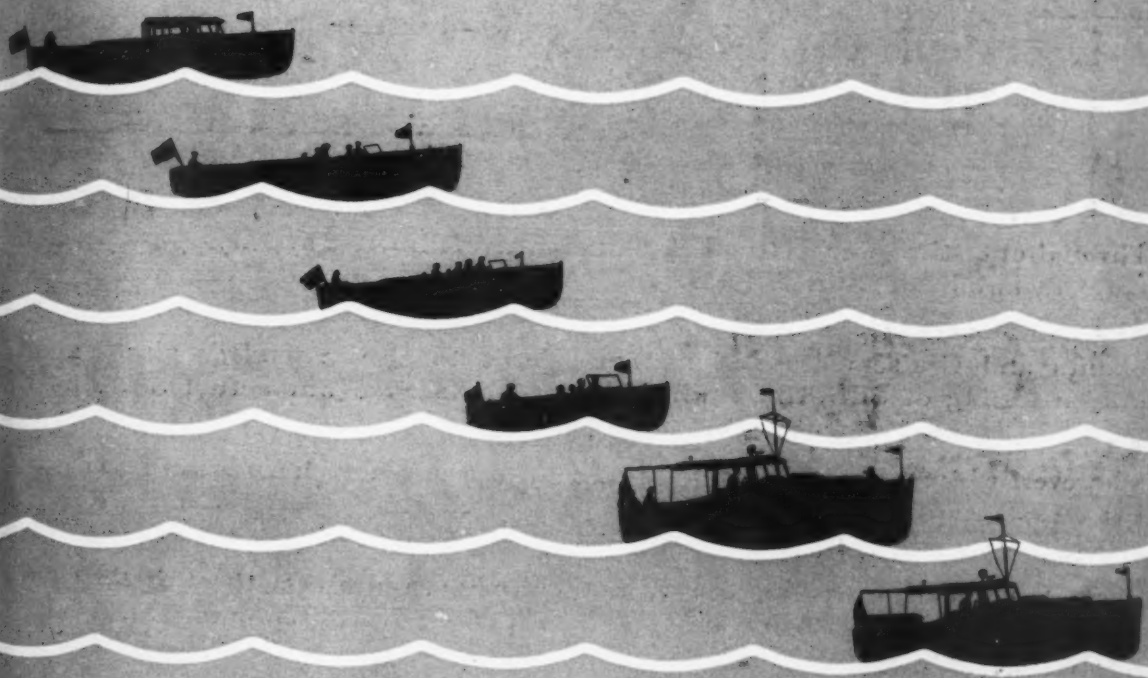
ROY M. BREWSTER
Bay Shore, L. I., N. Y.

Chrysler MARINE ENGINES

CHRYSLER MOTORS PRODUCT

Advertising index will be found on 3rd last page

Banfield



SEDANS RUNABOUTS CRUISERS

BANFIELD

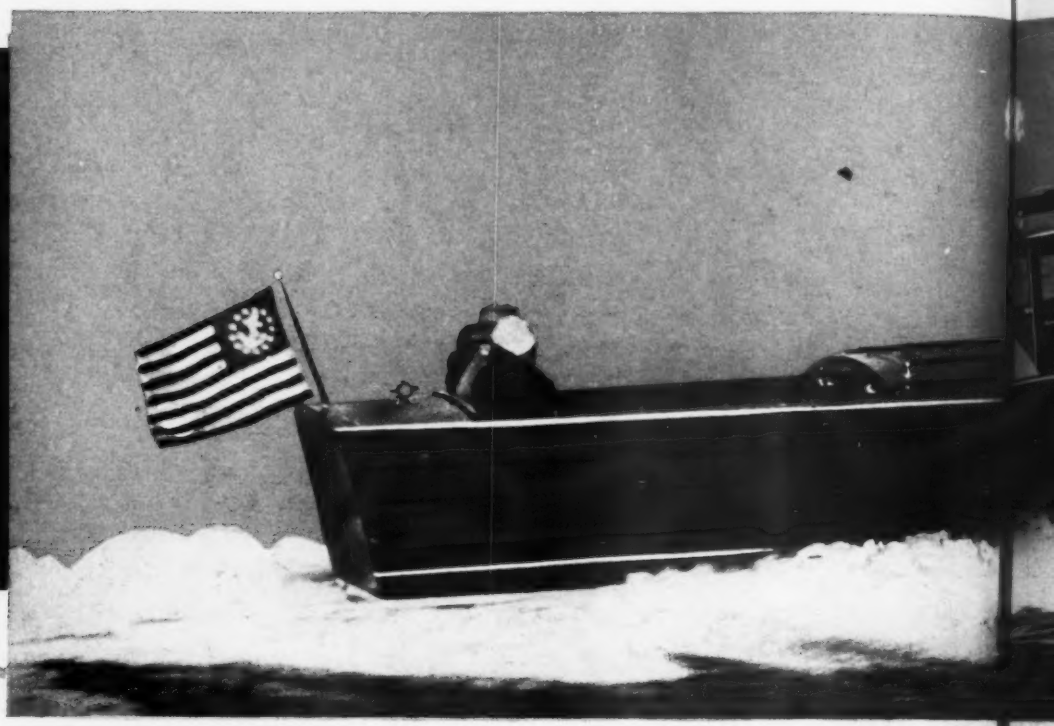
BANFIELD
"32"
SEDAN
Length 32 Feet.
Beam 8½ Feet

Same Hull Specifications as the BANFIELD "32" Cruiser

Speed 33-35 M. P. H.

Powered with 200 H.P. Kermath, Scripps or Sterling Engine

$7,100.00



Throughout the world ⚓ the name BANFIELD is synonymous of the true meaning of SEAWORTHINESS ⚓ ⚓ ⚓ BANFIELD Sedans ⚓ Runabouts and Cruisers are designed and built to give ⚓ *and do give* ⚓ not only a feeling of SECURITY when you step aboard ⚓ but actual SECURITY wherever whim may take you ⚓ ⚓ ⚓ A beam sea ⚓ a following sea ⚓ a head sea or quartering sea are just part of the day's run for a BANFIELD ⚓ ⚓ ⚓ Up and over the top ⚓ not shipping a drop ⚓ these little ships of the deep ⚓ speed you onward SWIFTLY ⚓ SAFELY and COMFORTABLY ⚓ ⚓ ⚓ In a BANFIELD you can venture where other motor craft hesitate ⚓ ⚓ ⚓ You can breast the tempest with confidence instilled by no other makes of sedans ⚓ runabouts or cruisers ⚓ ⚓ ⚓

BANFIELD "22" RUNABOUT
Length 22 Feet. Beam 6½ Feet
22-25 M. P. H. with Gray 72 H. P. Engine—$2,750
27-30 M. P. H. with Gray 129 H. P. Engine—$3,050

D"32" SEDAN

BANFIELD
"32"
RUNABOUT
Length 32 Feet.
Beam 8½ Feet

Same as model illustrated, but without sedan top

Speed 33-35 M. P. H.

Powered with 200 H.P. Kermath, Scripps or Sterling Engine
$6,500.00

From New York to Bermuda in hurricane weather ⚓ ⚓ New York to Cape Chidley, Labrador by the outside route — *the smallest boat to ever cruise into the subarctic* — are typical examples of every-day service tests to which BANFIELD boats are subjected ⚓ ⚓ ⚓

The secret is BANFIELD'S highly developed and specialized adaptation of genuine sea skiff construction ⚓ ⚓ ⚓ Mahogany planking ⚓ steam bent frames of generous size and close spacing ⚓ two-inch bottom ⚓ In fact ⚓ honest and stout construction throughout blended into craft of graceful streamlines and beautiful finish with every luxury demanded by the most discerning yachtsman ⚓ and speeds up to thirty-eight miles per hour ⚓ ⚓ ⚓ ⚓ ⚓ ⚓ ⚓ ⚓ ⚓

BANFIELD "26" RUNABOUT
Length 26 Feet. Beam 7½ Feet
25-28 M. P. H. with Gray 120 H. P. Engine—$4,250
35-38 M. P. H. with Kermath or Scripps 200 H. P. Engine—$5,500
35-38 M. P. H. with Sterling 200 H. P. Engine—$5,600

Banfield

BANFIELD offers you four selections in the world-renowned BANFIELD "32" cruiser ⚓ single and double cabin models with and without bow cockpit ⚓ ⚓ ⚓ Completely equipped ⚓ luxuriously furnished ⚓ handsomely finished ⚓ capable of speeds up to thirty miles an hour ⚓ these thoroughbreds of the sea accommodate four to six people with the very latest in sea-going comforts ⚓ ⚓ ⚓

BANFIELD "32" DE LUXE CRUISER
Single Cabin
20-22 M.P.H. with Gray 129 H.P. Engine $6950.
28-30 M.P.H. with Kermath, Scripps or Sterling 200 H.P. $7950.

You will never enjoy boating at its best until you are the owner of a BANFIELD ⚓ ⚓ ⚓ Visit our New York showroom or inspect BANFIELD sea skiffs under construction at our plant and see for yourself the many superior features of design and construction that make these boats the safest high-speed craft that naval science has produced. ⚓ ⚓ ⚓ *Illustrated literature and full details on request.*

BANFIELD "32" DE LUXE CRUISER
Double Cabin
20-22 M.P.H. with Gray 129 H.P. Engine $7450.

BANFIELD "32" STANDARD CRUISER
Single Cabin
20-22 M.P.H. with Gray 129 H.P. Engine $6250.
28-30 M.P.H. with Kermath, Scripps or Sterling 200 H.P. $7250.

BANFIELD "32" STANDARD CRUISER
Double Cabin
20-22 M.P.H. with Gray 129 H.P. Engine $6[illegible]

BANFIELD SEA SKIFF WORKS, INC.

PLANT
ATLANTIC HIGHLANDS, NEW JERSEY

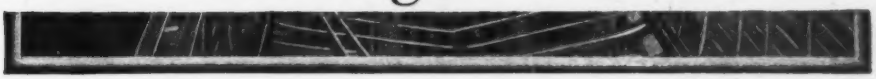
Sales Offices and Permanent Exhibit
254 Fourth Avenue, New York City

LARGEST BUILDERS OF SEA SKIFFS IN THE WORLD

⚓ ⚓ ⚓ ⚓

Engine room of Fairform Flyer protected by 5-ply bulkheads of Masonite Presdwood

The watertight bulkheads



in Fairform Flyers

...are made of this grainless wood

Sudden gales — pounding seas. The testing times when engines must be perfectly protected from water, by bulkheads that are *really tight.* Such arduous conditions of service, for which Fairform Flyers are designed and built, impelled the Huckins Yacht Corporation to standardize on bulkheads of this grainless wood board, Masonite Presdwood.

In a letter under date of March 15th, Frank P. Huckins, president of the Huckins Yacht Corporation, writes:

"We use Masonite Presdwood in our craft not only for bulkheads but for lining the inside of the hull, for motor hatches, shelves and various other purposes. For the bulkheads it is particularly desirable, as it is not only much stronger than wood, soaks up very much less water than wood and holds its shape much better, but, coming in large sheets, it results in enormous strength."

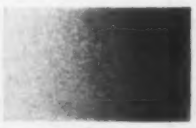
The resistance of Presdwood to moisture, you can readily test for yourself, with a sample which we gladly send, free. You can put a piece in water and leave it several days. Then cutting the piece in two, you will be astonished to find it is perfectly dry inside. And remember, this is but a single thickness of this grainless material, without the protection of paint, varnish or lacquer.

Presdwood comes in four foot widths, in lengths up to 12 feet and in 1/8th and 3/16th inch thicknesses. It does not crack or splinter, is easily cut or sawed and can be nailed near the edge without splitting.

The sample of Presdwood and the Presdwood booklet are yours for the asking. Just clip out the coupon and mail it in NOW.

MASONITE CORPORATION
111 West Washington Street, Chicago, Ill.

Masonite
PRESDWOOD
Made by the makers of
MASONITE STRUCTURAL INSULATION
REG. U.S. PAT. OFF.



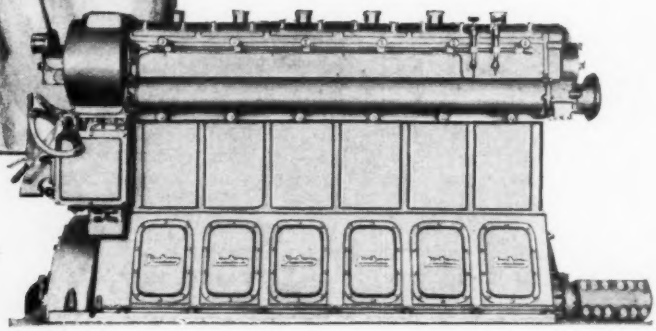
© M. C., 1930

MASONITE CORPORATION, Dept. V-5, 111 West Washington St., Chicago. Ill.
Please send me, Free, a sample of Masonite Presdwood and the Presdwood booklet.

Name .....

Address ..... *City* ..... *State* .....

POWER... *that completes the joy of yachting*



Power that is dependable... power that responds instantly to the throttle . . . smooth, vibrationless power that is the pride of knowing yachtsmen . . . that is Speedway Diesel Power.

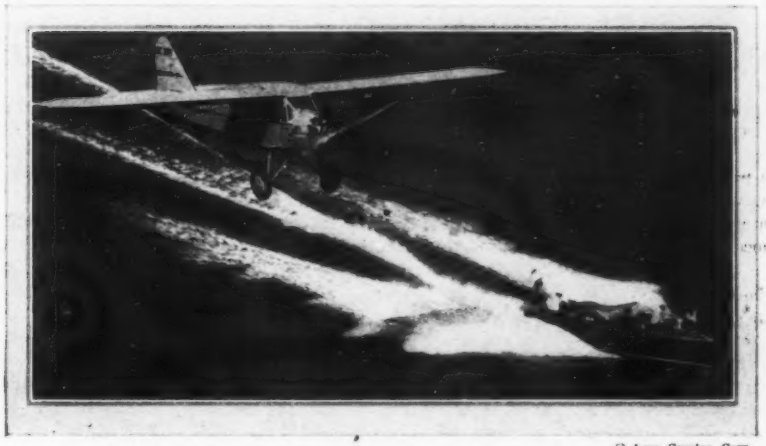
The Consolidated-built Speedway Diesel Engine is distinguished for its light weight and accessibility... and for its matchless efficiency and economy of operation. It is a power plant worthy of the finest yacht afloat.

Before you decide upon a motor for your new yacht or for replacement, be sure to consider Speedways. Write for descriptive booklet about either our Diesel or gasoline engines.

Speedway DIESEL ENGINE

CONSOLIDATED SHIPBUILDING CORPORATION
MORRIS HEIGHTS, NEW YORK

Advertising index will be found on 3rd last page



© Aero Service Corp.

A bright photographer caught this Bellanca plane and 28-foot Chris-Craft in an interesting contrast of two modern forms of travel

MAY, 1930

Vol. XLV, No. 5

MOTOR BOATING

FIFTY-SEVENTH STREET
AT EIGHTH AVENUE
NEW YORK, N. Y.

Edited by

CHARLES F. CHAPMAN

CONTENTS

Cover Design by W. N. WILSON

Ladies Aboard	24
Calendar of Coming Events	26
American Motor Boat Records	28
Good Bye to New York	30
Invitation to Cruising	31-34
Among Forest Clad Islands	35-37
The Express Cruiser Wayfarer	38-39
First Big Regatta of 1930	40-42
Raider, a Deep Sea Fisherman	43
The Faster They Go the Better They Are	44-45
Habana Sportsmen Entertain Again	46-47
Building Against the Waves	48-51
A Flying Diesel Engine	52-53
Monster Plant Opens	54-55
Boat Production Capacity Increased	56
The Ultimate in Fine Cruisers	57
Supercharged Stock Motors	58
Signs of Spring	59
Simple Simon, An Easy One	60-61
Leila, A Sea Going Runabout	62-63
Small Boats, Their Care, Construction and Equipment	64-67
Ventilating the Small Cruiser	64-65
How to Treat Rope Ends	66-67
Yard and Shop	68-70
Results Miami Beach Regatta	78-80
Outboard MoToR BoatinG Contents	203

Published monthly by the International Magazine Company, Inc., at 57th Street, at Eighth Avenue, New York City.

Ray Long, President — Thomas J. White, Vice-President — Austin W. Clark, Treasurer — Arthur S. Moore, Secretary

Single copies, per issue, thirty-five cents. Yearly subscription in the United States and Canada, $3.00. In foreign countries, $4.00. When you receive notice that your subscription has expired it is best to renew it at once, using the blank enclosed. When changing an address, give the old address as well as the new and allow five weeks for the first copy to reach you. Copyright, 1930, International Magazine Company, Inc. MoToR BoatinG is fully protected by copyright and nothing that appears in it may be reprinted wholly or in part without permission.

LADIES ABOARD!

SOMEONE has let the boat manufacturers in on the secret that women don't like boats. While this is hardly a surprise to those of us who have had access to the conversation of the sea-going wives, the builders never seemed aware of it until this year.

Of course, I don't mean those intrepid souls who drive hydroplanes, or who take chances of being shaken to pieces in a small boat with a large engine on the way from Albany to New York, or that grumbling bunch of us who have been at it so long as to be unable to imagine anything to do with our spare time but to spend it aboard. But rather those women, and they are the large majority, who, whenever two or three of them get together, on the porch of the popular yacht club or the float of the smallest boathouse, eventually get around to this sort of conversation:

"I can't see why Jim (Jim may be husband, father, boy friend, or any man for whom the particular lady feels responsible) doesn't take up golf, or polo, or pitching horseshoes, and give up this old boat."

And will you hear any feminine voice raised in praise of our noble sport? Go ahead and see if you will! And you can scarcely blame them, for until this year the only comfortable boats, from a woman's point of view, belonged to those rare and lucky wives whose husbands were both agreeable and handy. The woman dependent on a ship's carpenter was lost. He would willingly fix the engine bed so it extended half way into the cabin, but regarded with horror the idea of giving the galley six inches more room.

Some one must have told the boat builders about this feeling and on analyzing their market they made the discovery that the average boat had very little appeal to the average woman, and that they couldn't sell so-called family boats, when the most influential member of the family didn't want one. At the Twenty-fifth Annual Motor Boat Show you saw the first practical efforts to break down this opposition, there for the first time you women were treated not only as people but as potential buyers. You will soon be subject to a campaign more intensive than any launched since the automotive men decided that maybe women drivers weren't freaks, but a possible asset to the industry.

Amused to find how many times a salesman would lead me aside to point out some purely feminine feature of his craft, it occurred to me that it might be fun to come back alone and see how I'd be treated. Well, they were just as anxious for me to see the boats as if I'd had a dozen men along. If they were not quite so keen about explaining the special keel construction and the miles per gallon per hour, as they had been to the Skipper, yet they left no closet unopened that I might fully appreciate the roominess and comfort of their boats.

But even more than the salesmen's politeness, the very layout and equipment of the boats showed how glad they were to have ladies aboard. Did you notice the full length mirrors on so many of the doors? They were put in for no man's benefit.

The most unusual thing about the boats as a whole was the generous space given to the galley. Best of all, by unanimous consent, the builders took it out of the bow, the place, where in the old days it inevitably landed. The fact that it was unventilated, porthole lighted, and on a hot day gave the cook the same general effect as a Turkish bath was not given much thought. It was just one of the evils of boating in those days, like having the engine stop at least once on each trip. Ladies were not expected to go along anyhow, and if they did, sandwiches were provided and some brave man descended to the cabin, which was already hot and smoky from the engine, and struggled with a temperamental stove. And heaven help the person who opened the door or otherwise caused a draft.

But there wasn't any cruiser like that at this Show. Even in the single cabined boats the galley had its due, and no money was stinted on its equipment. Gayly colored enameled stoves, as easily and safely lighted as a range at home, boasted all sorts of attachments; warming ovens, roasters, barbecue burners, and even radiant heaters. Hot water systems were fairly common on the larger boats and looked as if they might be installed on smaller ones with little difficulty. Closets from which it was possible to extract a pot without being a contortionist and a plate without moving all the ship's china were there in abundance. White sinks with drainboards and real faucets were the order of the day. The users of these galleys will never know that sinking feeling of having plenty of water in the tanks, but being unable to get it because the combination pump and faucet which used to adorn every galley decided it was tired of pumping.

And those heavenly iceboxes, which iced so conveniently from the deck and whose wide doors made it possible to reach all parts without upsetting everything else.

So different from the icebox with which I had daily bouts for years. Tucked away behind the engine, in the furthest corner of a roomy boat, it was most scientifically constructed, with the ice on the bottom, thus keeping it—the ice—nice and cool and giving the food practically no benefit. To put in the smallest piece of ice you had to move everything out. If you wanted, say a bottle of milk, you leaned over a corner of the engine, and thrust yourself waist deep into the cavern. Then with your ear resting cozily upon the ice, you groped about for the elusive bottle. If it didn't upset (in which case it gurgled merrily down into the bilge), and you didn't bring down on your head the pickle jar from the top shelf, it was possible to extricate yourself not too much the worse for wear.

But the users of these new galleys won't have to do that, in fact the good old word seems doomed to be soon forgotten, for while one of the Show salesman was demonstrating the safety device installed on the stove of his cruiser, a sweet young thing in evening clothes entered. Yes, there were lots of them in evening clothes. (Will the ladies who went to the old Madison Square Garden, nattily attired in middy blouse effects please raise their—no, on second thought, we'll let that go). Anyway, she poked around and opened all the drawers and finally looked at me and said:

"Don't you think this is about the nicest kitchenette on any of the boats?"

Was the salesman appalled and did he correct her? He did not! Instead, he answered:

"That's just the way we want you to feel about it. We've tried to make it like your kitchenette at home.

Well I went away from there, for nobody could sell me a kitchenette on a boat, any more than they could sell me a cruiser with an automobile steering wheel.

The cabins were all attractively decorated and upholstered. The sleeping car effect, which was the universal inspiration for the interior of the small cruiser was practically eradicated. The electric fixtures all had their attractive features and some of the boats had pictures on the wall, a most radical step indeed!

The clothes closets provided for hanging things full length, and many

(*Continued on page* 108)

THE FASTEST SEAGOING CRUISER

45 FEET OF YACHT PERFECTION

ACME OF COMFORT
ECONOMICAL TO OWN

WOMEN APPRECIATE —

A FULLY ENCLOSED DECKHOUSE
As Comfortable as a Limousine

LIVING SALON
In the Good Taste of Your Own Living Room

SHOWER BATH, EFFORTLESS ELECTRIC TOILETS, AMPLE WARDROBE, UTTER PRIVACY
The Equal of Your Own Boudoir

POWER PLANT CUSHIONED ON RUBBER
Non-Interferring With Conversation

SERVICE QUARTERS and FACILITIES, COMPLETE, CONVENIENT, ISOLATED
Perhaps More Efficient Than Your Own Kitchen

A HULL DEVOID of PITCH and ROLL
No More Tiresome, Turbulent Trips

MOTOR CAR SPEED
Without the Dust, Traffic, Hoi Polloi

UTTER SAFETY
A Safety Hitherto Unknown Afloat or Ashore

MEN

YOUR WOMEN WILL CRUISE WITH YOU ON A

FAIRFORM FLYER

AND LIKE IT

Almost our entire fleet is owned by fastidious New Yorkers and New Englanders . . . so intent on owning the best that they reached out a thousand miles for her . . . shrewd enough to buy away from the Metropolitan overhead.

We deliver the FAIRFORM FLYER at your yacht club, complete to the last detail, with carefully, selected crew on board, trained in his duties; tuned to perfection, ready to cruise . . . without effort on your part.

HUCKINS YACHT CORPORATION
JACKSONVILLE, FLORIDA

CALENDAR OF COMING EVENTS

May 2—Richmond, Va., C. S. King Fulton, Planters Bank Bldg., Richmond, Va.

May 16-17—Intercollegiate Outboard Races—Colgate Outing Club, Hamilton, N. Y.

May 29-30—Outboard Regatta, Lake Quinsigamund, Mass.—All classes and time trials. F. Wigglesworth, 20 Brookline Ave., Boston, Mass.

May 30—Westerly Boat Club, Westerly, R. I.—E. V. Howe, 663 Thames St., Newport, R. I.

May 30—Terre Haute, Indiana, Wabash Valley Boat Club, Outboard Marathon and class races.

May 30—Norwalk Yacht Club, Outboard regatta. Comm. Chas. H. Harris, Norwalk, Conn.

May 30—Auxiliary Race for Major Casey Cup (Padanaram to Block Island. G. H. Sistan, 474 Park St., New Bedford, Mass.

May 30—Wabash Valley Boat Club Decoration Day Races. Carl Stahl, Wabash Valley Boat Club, Terre Haute, Ind.

June 10—Ocean Sailing Race, San Francisco to Tahiti. H. B. Warren, 610 American Bank Building, Los Angeles, Cal.

June 15—Camp Slocum, Kickamuit River, R. I.—E. V. Howe, 663 Thames St., Newport, R. I.

June 20—Seattle Wash. to Prince Rupert, B. C., Long Distance Cruise Race, 570 nautical miles. W. W. Meacham, Seattle Yacht Club, Seattle, Wash.

June 22—Fall River Yacht Club, Tiverton, R. I.—E. V. Howe, 663 Thames St., Newport, R. I.

June 29—Around Manhattan race. Classes C, E, & F. Cash prizes for Division III, Pulitzer Trophy and others for Division II. W. E. Willis, 85 Chambers St., New York, N. Y.

July 2-3-4—21st Annual Ocean Race Under the Auspices of Yachtsmen's Club—Dr. Eugene Swayne, 5617 Girard Ave., Philadelphia, Pa.

July 4—Ocean Sailing Race Los Angeles to Honolulu, H. B. Warren, 610 American Bank Building, Los Angeles, Cal.

July 4—Westerly Boat Club, Westerly, R. I.—E. V. Howe, 663 Thames St., Newport, R. I.

July 7-19—Observation Races for the several contenders for the defense of the America's Cup.

July 12—Block Island Race for Cruisers, 100 N. Miles. New York Athletic Club—F. W. Horenburger, 959 Eighth Ave., New York, N. Y.

July 12—Canajahorie, N. Y.—Mohawk Valley Towns Association Regatta—Harold W. Cole, c/o The Journal, Scotia, N. Y.

July 13—Lake Winneconnet, Taunton, Mass.—E. V. Howe, 663 Thames St., Newport, R. I.

July 13—Interlake Yachting Association Regatta at Put-in-Bay, Ohio.

July 18-19—Portland, Me., Regatta—A. L. Anderson, Camden Yacht Club, Camden, Me.

July 19-20—Loon Lake, Wash. R. G. Reimers, Holley Mason Hardware Co., So. 157 Howard St., Spokane, Wash.

July 22—Augusta, Me., Regatta—A. L. Anderson, Camden Yacht Club, Camden, Me.

July 25-26—Camden, Me., Regatta—A. L. Anderson, Camden Yacht Club, Camden, Me.

July 25-26—Newport, R. I.—Dr. H. P. Beck, Newport, R. I.

July 28-29—Outboard and Speedboat Races, New Berford, Mass. (First race for Col. E. H. R. Round Hills Trophy.)

July 31-Aug. 2—Bay City, Mich. Eastern Michigan Water Carnival, Outboard regatta

Aug. 1—Tenth Annual Bayside-Block Island Auxiliary Handicap—Harry V. Spurr, 45 East 17th Street, N. Y. City.

August 1-3—Buffalo, N. Y. Regatta A. C. Glasser, Sec'y, 122 Pearl St., Buffalo, N. Y.

August 2-3—Stone Harbor, N. J.—Dr. Wm. Haines, Medical Arts Buildings, 16th & Walnut Sts., Philadephia, Pa.

August 7-9—Miles River Yacht Club, Miles River, Md. George Krill, St. Michaels, Md.

August 10—Camp Slocum, Kickamuit River, R. I.—E. V. Howe, 663 Thames St., Newport, R. I.

Aug. 12-13-14—New Bedford Yacht Club Race, Week for sailing craft. Geo. H. Sistan, 474 Park St., New Bedford, Mass.

Aug. 15—Boothbay Harbor, Mains. M. C. Welles, 8 Arlington St., Boston, Mass.

August 16-17—Gold Cup Regatta, Red Bank, N. J.—T. S. Field, 254 Fourth Ave., New York, N. Y.

August 20-30—Official Trial Races to select the defender of the America's Cup against the challenge of Sir Thomas Lipton.

August 24—Lake Winneconnet, Taunton, Mass.—E. V. Howe, 663 Thames St., Newport, R. I.

August 29-September 1—Harmsworth Tophy race, Detroit, Mich.—W. D. Edenburn, General Motors Bldg., Detroit, Mich.

September 1-2—Rhode Island Yacht Club, Providence, R. I.

September 5-6—Middletown, Conn. Intersectional Outboard Championship.

September 6-7—Cincinnati, Ohio—E. C. McHugh, Times Star Bldg., Cincinnati, Ohio.

September 7—Westerly Boat Club, Westerly, R. I.—E. V. Howe, 663 Thames St., Newport, R. I.

Sept. 8-9—Lake Merritt, Oakland, Calif. A. L. Bobrick, 111 Garey St., Los Angeles, Calif.

September 12-13—Presidents Cup Regatta, Washington, D. C.—W. A. Rogers, Washington, D. C.

September 13—Races for the America's Cup. American defender and Sir Thomas Lipton's Shamrock V.

RACING IN EUROPE

Union Internationale de Yachting Automobile

May 18—Holland, Outboards circuit of the Grand River.

May 27-June 2—Germany, at Berlin, Potsdam. All classes.

June 15—Belgium, Brussels. All classes.

June 26-27-28—England, Thames. Duke of York trophy and outboards.

July 7 and 15—France, Herblay. All classes and outboards.

August 3—Sweden, Stockholm. All classes.

September 18-22—Italy, Venice. All classes.

DELAWARE RIVER EVENTS

Delaware River Yachtsmen's League

June 21—Dual Class Regatta, Forest Hills Y. C. and Farragut Sportsmen's Assn., Camden, N. J.

June 28—Dual Class Regatta, Riverside Y. C. and Westville P. B. A., at Riverside, Essington, Pa.

July 4-5—Municipal Regatta, auspices Trenton Yacht Club, trophies by City of Trenton—Outboards, speedboats, and cruisers.

July 12—Speedboat Regatta, Delaware River Y. C., Torresdale—John Wanamaker, Jr., trophy races.

July 13—Cruiser and Cabin Boat Championships of Delaware River, Wissinoming Y. C.

July 19—Annual Outboard and Speedboat Regatta of West End B. C, Chester, Pa.

July 26—Outboard and Speedboat Regatta of Keystone Y. C. and Delaware River Outboard Motorboat Assn., at Tacony.

July 27—Special Keystone Y. C. Cruiser and Cabin Boat Regatta, Tacony.

August 2-10—Annual Chesapeake Bay Cruise of Riverside Yacht Club.

August 8-9—Third Annual Philadelphia Outboard Regatta on Schuylkill River for $6000 Sir Thomas Lipton trophy.

August 16-17—Canoe championships of Eastern Canoe Association, and Outboard and Speedboat Regatta, of Anchor Yacht Club, Bristol, Pa.

August 23—Annual Class Race to Trenton, starting 2 P. M. from Keystone Y. C., distance 25 n.m., finishing Trenton Y. C.

(*Continued on page* 186)

LUSTY POWER AND SPEED *for the Sea-Free Yachtsman*

Robinson Seagull Cruisers and Speed Commuters are built in four distinctive sizes—each suited to every demand for staunchness and performance. Hand-wrought—structurally sound—impressively seaworthy and handsomely fitted, each model presents an alluring picture of completeness to deftly serve your social and sporting needs afloat. Speeds from 28 to 38 miles per hour with single and twin screw power... A cruising radius of 250 miles or more. Cabin interiors luxuriously comfortable by day—at night converted into snug sleeping apartments. Completely equipped from ice chest to table silver for a cruise of any length. Built throughout of African mahogany and framed in stoutest oak. Why not post yourself on Robinson design—on the excellence of Robinson performance and their ideal accommodations? An illustrated catalog will be mailed to you on request.

ROBINSON MARINE CONSTRUCTION CO.
Benton Harbor Michigan

ADA H, also illustrated below, is a single cabin twin screw 45-foot Robinson Seagull Commuter owned by Knowlton L. Ames of Jacksonville. Speeds up to 38 miles per hour are available. A number of 45-footers in single and double cabin models are building for other prominent yachtsmen.

ROBINSON *Seagull* CRUISERS

AMERICAN MOTOR BOAT RECORDS

MILE TRIALS

(Average of 6 One Mile Runs)

Miss America VII, owned by Gar Wood, at Miami Beach, Florida, March 23, 1929. Built by Gar Wood, Packard motors. Speed 93.123 m.p.h.

GOLD CUP RACES

625 cubic inch boats

Fastest heat (30 miles) Hotsy Totsy, owned by Caleb Bragg, Greenwich, Conn., 1927. Time, 35:06:83; speed 51.261.

Fastest lap (3 miles), Imp, owned by Richard F. Hoyt, Manhasset Bay, 1926. Time, 3:22; speed, 53.58.

Total race (90 miles), Imp, owned by Richard F. Hoyt, Red Bank, N. J., 1929. Time, 1:51:33.48; speed, 48.405.

UNLIMITED HYDROPLANE

Fastest heat (30 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 25:44; speed, 70.0.

Fastest lap (5 miles), Miss America, owned by Gar Wood, Detroit, 1920. Speed 71.4.

Total race (90 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 1:28:07; speed, 62.0.

DETROIT SWEEPSTAKES

Fastest lap (3 miles), Packard Chris Craft II, owned by Colonel J. G. Vincent, Detroit, 1925. Speed, 58.95.

Total race (150 miles), Packard Chris Craft 11, owned by Colonel J. G. Vincent, Detroit, 1925. Time, 2:41:47.10; speed, 55.65.

BRITISH INTERNATIONAL TROPHY

UNLIMITED HYDROPLANES

Fastest heat (30 nautical miles), Miss America VIII, owned by Gar Wood. Detroit, Sept. 2, 1929. Speed, 75.287 m.p.h.

Fastest lap (5 nautical miles), Miss America VIII, owned by Gar Wood, Detroit, Sept. 2, 1929. Speed, 79.362 m.p.h

12 HOURS

Rainbow VII, owned by Harry B. Greening, Lake Rosseau, Canada, Sept. 30, 1929. Total 723.92 miles. Running time 11,27:28. Average speed, 63.17 m.p.h.

24 HOURS

Rainbow IV, owned by Harry B. Greening, Lake Rosseau, Canada, October 2-3, 1925. Total miles, 1217.88. Speed, 50.78.

1½ LITER CLASS (TRIAL RUNS)

Boat driven by Ralph Snoddy at Newport Beach, Calif. Oct. 6-7, 1929. Built by Hacker. Miller engine. Speed, 45.726 nautical m.p.h.; 52.585 statute m.p.h.

In Competition, Little Spitfire, owned by J. H. Rand, Jr., Detroit, September 3, 1927. Speed, 42.17.

151 CLASS—UNLIMITED

1-mile straightaway, Spitfire V, owned by J. H. Rand, Jr., Albany, N. Y., July 5, 1927. Speed, 62.82.

In competition, Spitfire V, owned by J. H. Rand, Jr., San Diego, Calif. December 12, 1927. Speed, 55.42.

One lap in competition, Miss California, owned by Loynes-Harris, San Diego, Calif. December 12, 1927. Speed, 59.68.

151 CLASS LIMITED

In competition, Miss California, owned by Dick Loynes, at Lake Elsinore, Calif., December 7-8, 1929. Five miles, 6:01. Speed, 49.86 m. p. h.

Miss California, owned by Dick Loynes at Balboa, Calif., Dec. 4, 1929. Built by Dick Loynes. Miller engine. Speed, 54.729 m.p.h.

340 CLASS

Miss California, owned by Loynes-Harris, Houston, Texas. July 2, 1927. Speed, 50.99.

510 CLASS

Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky. July 5, 1926. 10 miles—in competition. Speed, 51.28.

7⅛ miles, Miss Kemah, owned by Henry Falk, Houston, Texas, July 4, 1927. Speed, 53.41.

One Mile Trials—Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky. July 5, 1926. Speed, 53.43.

725 CLASS

5 Miles—Helen, owned by M. J. A. Mitchell, Louisville, Ky. July 5, 1926. Speed, 61.22.

Mile straightaway, Doc's II, owned by I. R. Van Sant, Peoria, Illinois. October 11, 1925, winning King of Belgians' Trophy. Speed, 61.77.

SINGLE ENGINE HYDROPLANES

1 mile, Miss Chicago, owned by Sheldon Clark, Detroit. Sept. 3, 1921. Speed 72.86.

15 miles in competition, Fore, owned by W. D. Foreman, Cincinnati, Ohio. September 29, 1923. Speed, 64.75.

OUTBOARD RECORDS

The official Outboard Racing Rules adopted by all Associations for 1929 recognize American records made only over distances of five, six, ten and fifteen miles and mile trials made over statute and nautical miles in each of the several classifications of engines, by drivers of Divisions I and II.

It must be emphasized that records under these rules are AMERICAN records and NOT World records.

MILE TRIALS, STATUTE MILES

CLASS A, DIVISION I

Blue Streak, driven by Margaret Mullin at Balboa, Calif., Dec. 4, 1929. Built by Elsinore. Lockwood engine. Speed, 27.85 m.p.h.

CLASS A, DIVISION II

Blue Streak, driven by Chuck Hall, at Balboa, Calif., Dec. 4, 1929. Built by Elsinore. Lockwood engine. Speed, 28.4 m.p.h.

CLASS B, DIVISION I

Baby Brontosaurus, driven by Billy Lyon at Balboa, Calif., Dec. 4, 1929. Built by Crandall. Johnson engine. Speed, 43.974 m.p.h.

CLASS B, DIVISION II

Crandall Comet, driven by Chas. Holt, at Balboa, Calif., Dec. 4, 1929. Built by Crandall. Johnson engine. Speed, 43.94 m.p.h.

CLASS C, DIVISION I

Black Maria V, driven by Mildred Milde, at Newport Beach, Calif., Oct. 6-7, 1929. Built by Al Thomson. Evinrude C engine. Speed, 43.711 m.p.h.

CLASS C, DIVISION II

Black Maria V, driven by Al Thomson, at Newport Beach, Calif., Oct. 6-7, 1929. Built by Al Thomson. Evinrude C engine. Speed, 43.192 m.p.h.

CLASS D, DIVISION I

Crandall Comet, driven by Billy Lyon, at Balboa, Calif., Dec. 4, 1929. Built by Crandall. Johnson engine. Speed, 47.15 m.p.h.

CLASS D, DIVISION II

Crandall Comet, driven by H. G. Ferguson, at Balboa, Calif., Dec. 4, 1929. Built by Crandall. Johnson engine. Speed, 49.48 m.p.h.

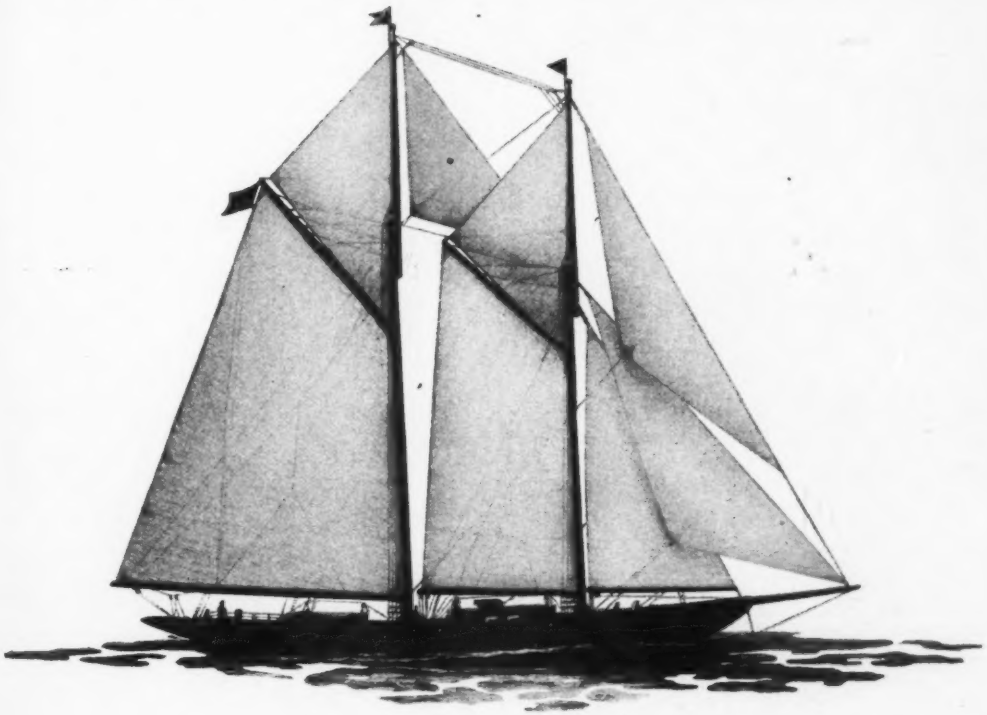
CLASS E, DIVISION I

Fresno Flyer, driven by Dick Loynes at Balboa, Calif., Dec. 4, 1929. Built by Ashbridge. Johnson engine. Speed 33.78 m.p.h.

CLASS E, DIVISION II

Wildcat, driven by F. E. Ludolph, at Peoria, Ill., Oct. 15, 1929. Built by Hooton. Elto Engine. Speed, 39.353 m.p.h.

(Continued on page 72)



Etak, the handsome new auxiliary schooner designed by Cox and Stevens, Inc., for Walter G. Ladd. Length overall, 134'-2"; beam 28'; draft 16'. Power, 200 h.p. lightweight Winton-Diesel.

HIGH-SPEED, lightweight, more compact marine Winton-Diesels reflect Winton leadership. Their greatly reduced weight and size, and superb performance in many notable new yachts and houseboats, distinguish them as *marine power plants supreme.*

CONSISTENTLY maintaining the lead, year after year, Winton Marine Engines continue to power the elite of the American yachting fleet. A majority of the larger and finer yachts now building for the 1930 season will be Winton-powered.

THE WINTON ENGINE COMPANY

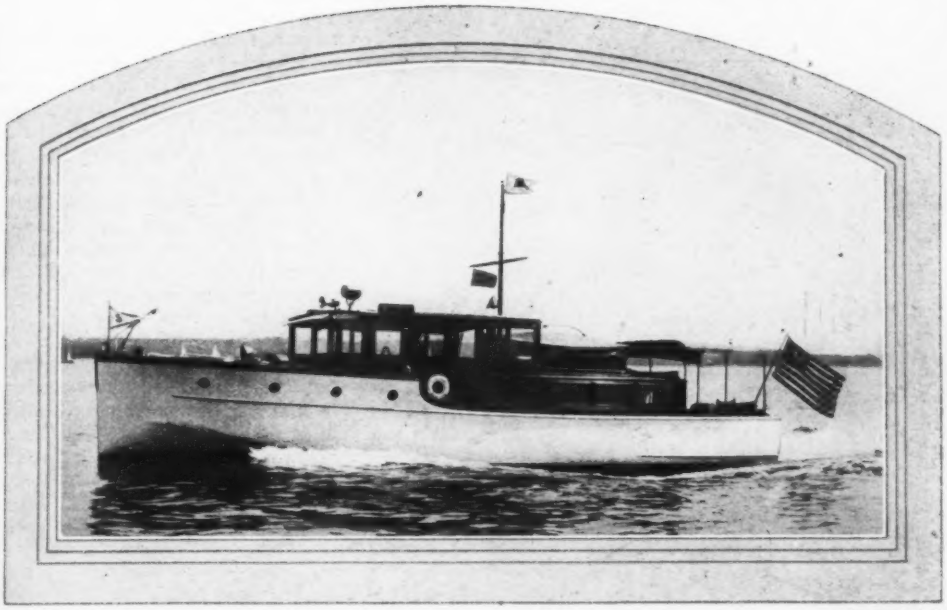
CLEVELAND, OHIO

M. Rosenfeld

GOOD BYE TO NEW YORK

An A. C. F. cruiser which has made the trip from the builder's plant at Wilmington to New York harbor, tarries awhile under the towering skyscrapers of the big city before being picked up bodily and set down on the deck of a steamer for transport through the Panama Canal to the west coast where her owner impatiently waits

MAY MOTOR BOATING 1936



M. Rosenfeld

The larger cruising boats such as this 48-foot Dawn will afford comfortable quarters for an entire large family for extensive cruises

INVITATION TO CRUISING

The Fascination of Exploring the Unknown With Many New Experiences Constitutes One of the Greatest Joys of Boating

By ALFRED F. LOOMIS

TO start this invitation to cruising I can do no better than tell the tale of a yachting friend who took his fiancée for her first sail last summer. He is an inveterate cruiser—she had never before been afloat. On her reaction to salt water depended their future happiness.

My friend might have eased his prospective bride into the sport of yachting gradually—letting her sit for an afternoon in the cockpit of a motor cruiser, eating dainty sandwiches and imbibing cooling drinks while watching the colorful life of a harbor revolve around her. But he is impetuous. Time pressed, and he bundled her aboard his boat without regard to weather. A cold hard nor'wester was blowing—one of those winds that turn your blood into wine and make you thank God you're a sailor (that is, of course, if you happen to be one).

They cast off their mooring, got under way, and made for open water. The open water made for them, and the first wave that slopped aboard pelted heavily against the girl's oilskins. She licked the salt from her lips and said nothing. My friend cursed his impetuosity. Now, he thought, the fat is in the fire. She'll get wet, and her color will run, and she'll hate yachting—and me. He saw the experience through her eyes, exaggerating the height of the seas, the motion of the boat, and the blasts of the wind. After an hour of this vicarious discomfort he began to feel sick—he who had cruised thousands of miles in blue water.

Consequently my friend was almost overcome when his fiancée broke the silence with the words, "It must be time to eat. I'll make tea and get the sandwiches."

"Don't go below," he implored her. "I never care for food when I'm sailing, and we'll have a hot dinner when we get back."

"We'll have that too," said the girl. "But I'm hungry and we'll eat now."

She went below and drew the hatch shut after her. My friend thought dismally of landlubbers in closed cabins and laid a course for home. But still the sea

The series of Wheeler Playmates are available in a wide choice of sizes with both single and double cabin arrangements

The Matthews' boats feature particularly fine cruising and galley arrangements for comfort afloat

heaved and the boat tossed. He wished he had never left dry land.

Presently the hatch opened and the girl gracefully emerged. Her cheeks were still their natural color, her eyes clear and sparkling. "Things don't stay put," said she, "so I thought we'd better eat out here. Here's your tea."

"H-h-how do you feel?" he asked anxiously. "Are you all right?"

"Who, me?" she replied. "Never felt better in my life. I don't wonder you're crazy about sailing."

But the next time he took her out, when the Sound was calm, and cooling zephyrs caressed its waters, and other boats were out in hundreds, she expressed disappointment. "I thought," said she, "it always blew a gale on salt water. If you want me to be happy afloat you'll have to provide more excitement than this."

Having told this truthful tale, I feel that I owe an apology to my reader. The girl is not a type but an exception. There are many thousands of yachtsmen —novices, veterans, and inbetweens—who genuinely like calm weather. They enjoy an occasional blow, but they are thankful that there is hardly a day in the week during the yachting season when a sturdy, well-found cruiser cannot pursue her peaceful courses with sureness and without discomfort to the weakest stomach.

People who have not yet taken up the sport of motor boating are, as I imagine them, in an unhappy frame of mind. No argument is needed to convince them that motoring, which used to be a companion sport on land, has become a grief. The thrill of the open road is gone because there is no longer an open road. The thrill of open water tempts them, but they hold back because of an assorted collection of dreads and fears. They fear starting with the wrong kind of boat, dread placing themselves in the power of tyrannous paid hands, fear making themselves ridiculous in plunging forthright into what seems to them a mysterious art, and dread the care and responsibility of floating property.

All of these fears can be dissolved by any salesman. Through development over a long period of years by builders of standardized cruisers the type has become ideal. Except in the larger classes it is operated without an engineer or any other member of the ruling classes. It is easily handled by the owner and his wife, and such errors in seamanship as may be made in the beginning are either overlooked or unseen by the boating community. Membership in a yacht club (and clubs are always anxious to take in owner-members) carries with it safe anchorage, which reduces the burden of responsibility. The maintenance of a boat soon ceases to be a care and becomes one of the brightest highlights of a hobby.

There remains, perhaps, the fear of the unknown to deter an agonized motorist from becoming a motor boatman, and it is one of the strangest facts of yachting that this fear, by an imperceptible mutation, becomes its greatest fascination. I remember that when I took my first cruise in a motor boat my greatest fear was of the open sea. We were Florida-bound, my skipper and I, and if we had had to push right out into the ocean I doubt that I would have made the venture. We started, as it happened, across Long Island Sound in one of those occasional nor'westers that I have previously mentioned.

The time was late in the fall, and the wind really meant business. But that was all right. I didn't happen to be afraid of the Sound. We took one of the

worst dustings I have ever had, crossed safely to smooth water, and thought it was magnificent. The terrible ocean lay ahead several hundred miles, but how I did dread it!

We followed the inland route, and although each southward mile was enjoyable in itself it carried me reluctantly nearer to the spot where we should have to bid goodbye to sheltered waterways and strike out into the unknown. Finally, after many days, we came to Bogue Inlet, and I was right up against it. We anchored for the night and felt the little motor boat lifting to the ocean swell. A few dark hours of torture and I should be face to face with the dreadful.

Morning came, and, impelled by that other fear—of being thought afraid to do what one sets out to do—I helped my skipper get under way. We rounded a marshy point and saw the incoming rollers breaking on the bar. We heard their thunder, magnified many times by my heightened sensibilities, and echoed by the beating of my heart. We passed through the mouth of the inlet and I thought that my greatest fear—that of going aground in open water—was about to be realized. The water shoaled as we neared the bar. My soundings with the lead were frequent and frantic. I was scared half to death.

"We picked a nice day for it."

M. Rosenfeld

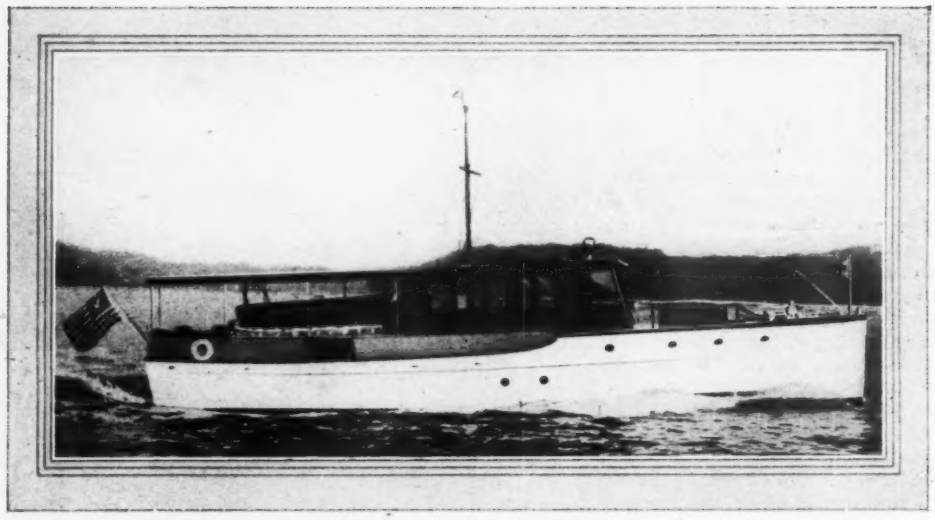
A cruiser of the speedier type—the Banfield 32, will accommodate a congenial party

Excellence in smaller boats stands out prominently in the Richardson Cruisabouts. They will accommodate from four to six persons

My skipper had calmly spoken, and I looked around at him in amazement. Was he a superman that he could endure these terrors and talk about the weather? In looking around I saw that we had passed the line of breakers and were in the open ocean. The bottom was no longer visible. The surface of the sea was a delicate pearly gray, absolutely unrippled. In a long, hazy line the land stretched away on our starboard hand. Ahead, the horizon beckoned, inviting, irresistible. The accumulated dreads of many days miraculously disappeared. Between beats of my overworked heart I had ceased to fear the sea and grown to love it. And though I have feared it many times since when it was in the process of fermenting other unknown terrors, I have never ceased to love it.

It is, I contend, a strangely mingled fear and fascination of the unknown that constitutes the greatest joy of cruising. In the very beginning, let us say, a novice makes his first landing alongside a wharf. As he approaches at slow speed a mild form of fear grips him. Will he carry too much way and dent his bow or make himself conspicuous? Such questions engage his thought as he turns the wheel and reverses the propeller. Contrary to expectations, the landing is successfully accomplished. A thrill suffuses him and he would like to back off and try it again and again for the fun of it. Or, if the landing is not successful, there is accentuated dread at the moment of impact. Yet when the splinters stop flying the novice consoles himself with the thought that he knows how not to make a landing and that it will be fun doing better next time.

The same spirit of adventure accompanies every expedition into unknown waters. Is this the harbor I think it is? Where is the church steeple shown on the chart? Am I too near the point of land? Too far from the channel buoy? Did I look up the tide for the right day? What's the wind going to do to me as I drift to a standstill? In the transition from the unknown to the known every problem becomes



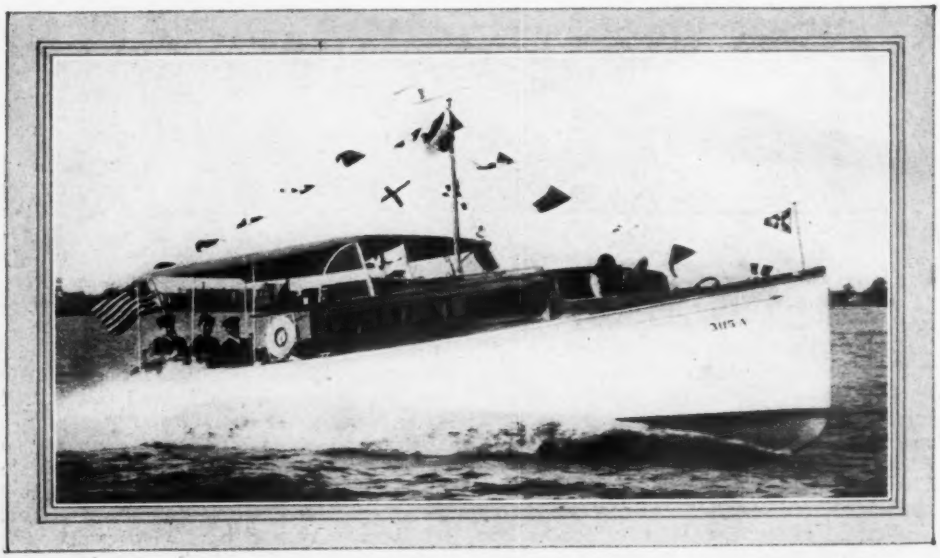
One of the available fleet of Elco cruisers which come in many sizes from 27 to 50 feet in length

delightful. Nor is it necessary to cruise continually with one's heart in his mouth to extract the full enjoyment of the sport. With accustomedness even the unknown loses its terrors, retaining only its vivid stimulus to the imagination.

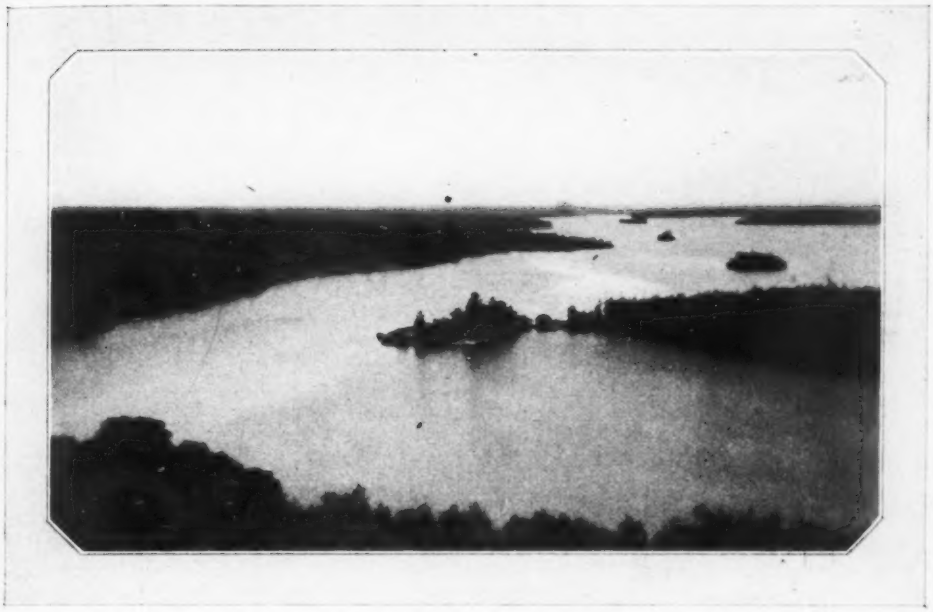
It may be as well to mention here that if a man likes a boat for other than cruising purposes there is no law or social compulsion to make him go cruising. There are thousands who think of a motor boat as no more than a humble vehicle to convey them to the fishing grounds. I have seen them anchored by the day off a stone breakwater pulling in minnows at hourly intervals. They like it. I have also seen them trolling for game fish in tropic waters and heard the exciting clatter of the bobbins in the trolling boxes as the fish struck and ran away with the spoons. There are those who say that multiple fishing is unsporting and use their boats to take them to the tarpon grounds or who fit pulpits to their bows and seek the gamey swordfish. Each distils his own joy from motor boating. But, having rendered recognition to these kindred sports, I get back to my particular sport of cruising.

Within a day's run of New York there are fifty harbors, and if a man is of an explorative turn of mind he may devote the week-ends of a season or two to acquainting himself with their charms and differences. Or if, as some do, he grows tired of returning to his own harbor, he can push farther each Saturday, leave his boat in friendly hands, and return to town by rail. A day's distance by motor boat can be retrieved in a couple of hours on a train. In the next week-end the journey can take up where it left off, and if it be prolonged as little as twenty miles (when running east from New York) a new harbor will be found and new conditions of navigating encountered.

In such progressive cruising the time comes when the distance from the metropolis is too great for convenient return by rail. But at this time the average cruiser with the average two-week vacation resorts to the tactics of the Arctic (*Continued on page* 112)



This smart Corsair cruiser has many original features such as forward cockpit, enclosed deck house and speed



White Fish Narrows—Lake of the Woods

AMONG FOREST CLAD ISLANDS

An Island Voyage Along the Minnesota-Ontario Boundary Through the Twenty Thousand Islands of Rainy Lake and Lake of the Woods

By LELAND WATSON

ON a moderate sized map of North America one sees two small and irregular blotches of blue spreading along the boundary between the United States and Canada from the 92nd to the 95th parallel of longitude. On a map drawn to a larger scale of the region embracing northern Minnesota and southern Ontario, these two little blotches of blue appear as a pair of large connected lakes covering an area of two thousand square miles and dotted with innumerable islands of every shape and size. From one of these Rainy Lake islands twelve miles east of International Falls Doc and I began our five-hundred mile cruise.

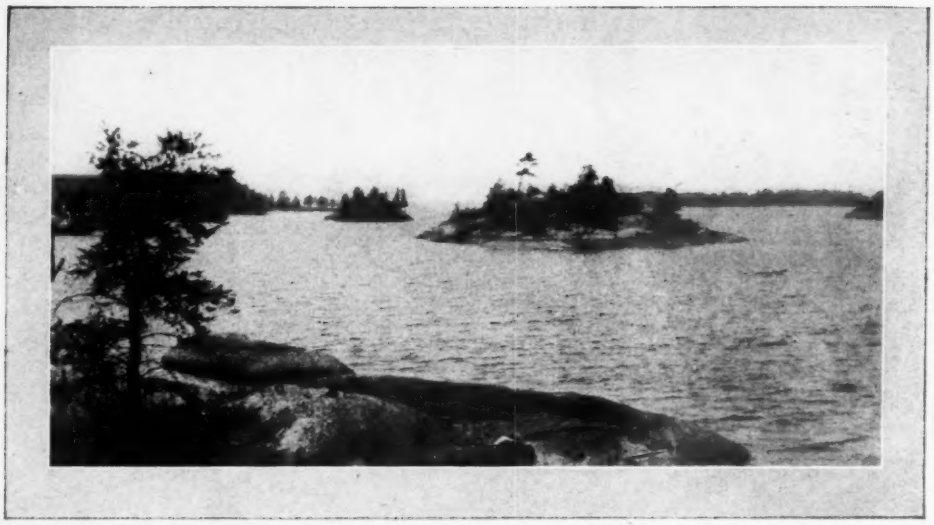
It was a beautiful morning late in August that found Beebe at the dock in the little harbor before our cabin, its eighteen feet of seaworthiness carefully loaded with our luggage, its eight horse power outboard motor tuned for days of constant service. There were provisions under the deck at the bow, and a tent, a small ice chest, and equipment for camping, packed away beneath a tarpaulin amidships. Doc, my passenger, first mate, ship's surgeon, and assistant cook, unfastened the lines at bow and stern while I prepared to start the motor. Three jerks of the mule's tail and we were off, moving swiftly away from the dock and out between the high rock walls of our little harbor towards the open lake. Before us stretched twelve miles of calm blue water, with two tiny islets floating on the distant horizon, looking for all the world like two schooners at sea passing the mouth of some deep bay on the coast of Maine. To the north was Jackfish Island, from the cliffs of which the summer castle of a wealthy Chicagoan looks out over the lake. The north and south shores as far as the eye could see were fringed with islands.

Making about ten miles an hour, we headed eastward past the tempting beach of Sand Point Island and the misty blue hills of Swell Bay, Seine Bay opening before us to the northeast as we rounded the last scattered islands on the Canadian side of the lake. Doc pointed inquiringly towards Seine Bay, a thin ribbon of water leading off endlessly into the forest. I opened our map upon his knees and showed him the series of connected lakes and rivers reaching from Seine Bay for fifty miles into the wilderness. Cruisers and other pleasure boats frequently ascend this whole chain of lakes and rivers to Sturgeon Falls, stopping off to visit an operating gold mine and a primitive Indian dance hall along the way. I pointed out to Doc many other deep bays and navigable rivers, and he continued to study the map attentively while we approached a group of little islands in the middle of the lake, the Sunset Islands.

"It's the raggedest looking lake I ever saw on any map," he commented. "The shore line makes me think of a moth-eaten shirt."

"If you substitute a glacier for the moth and the oldest-known rock formation in the world for the shirt, you've described it pretty accurately," I added.

Half an hour later we entered the Brule Narrows, a dangerous channel between the eastern and western parts of the lake, made hazardous for inexperienced pilots by submerged reefs, though tugs and cruisers



Thickly scattered little islands on the lake

traverse it daily on their way between Kettle Falls and International Falls. We managed to find our way through without accident—perhaps because of several newly-set buoys along the channel, and emerging at the eastern end, the second and largest half of the lake spread out before us. On the horizon a few small islands seemed to hang upside down between sky and water. Towards these we headed, passing Manitou Rock not long after, where Indians still halt their bark canoes to make offerings to their tribal gods. Leaving the regular Kettle Falls route at this point, we steered southeast for a small bay on the American shore, entering which we disembarked and walked several miles inland over a half-obliterated forest trail to fish a trout stream. Doc proved himself an enthusiastic and able fisherman, so that when we returned to our boat about sundown to make camp for the night, we had an appetizing panful of brook trout.

The following day we continued to Kettle Falls at the eastern extremity of Rainy Lake. Here the waters of Namakan and a seventy-mile chain of lakes pour over twin dams into Rainy Lake. A lock here and at two or three other points along the International Boundary would connect a whole series of navigable lakes. There was even a proposal entertained successively by the British Parliament, and the Minnesota Canal and Power Company to connect Winnipeg, Manitoba with Lake Superior by developing the old water route of the freight canoes from Grand Portage and the Pigeon River to Lac la Croix, Rainy Lake, Lake of the Woods, the Winnipeg River, Lake Winnipeg, and the Red River. Engineers advocating this project in 1906 estimated that only one mile of canal cutting would be necessary in the entire distance between Lake Superior and Winnipeg. Whatever the possibilities of such a water route, the concessions granted by the

The dock and C. P. R. R. station at Keewatin, Lake of the Woods

Out between the high rock walls of a little harbor on Rainy Lake

Dominion Government to power companies on the Winnipeg River have definite provisions for a future canalization scheme, and the day is probably not far distant when Lake Winnipeg, Lake of the Woods, Rainy Lake, Namakan and Kabetogama lakes will all be navigably connected.

From Kettle Falls Doc and I turned back down the lake, arriving at the Brule Narrows again about noon. From the Brule Narrows we headed northwest, leaving our former course to visit Swell Bay. Here we stopped long enough to climb a forester's trail to the summit of the great blue hills which one can see from any part of Rainy Lake. When, still panting with the long climb, Doc turned to survey the panorama that spread out below us, his eyes kindled in appreciative admiration. A fairyland of unbelievable loveliness, the silvery network of water and islands stretched away to the horizon in every direction. From such a height certain parts of the lake had the appearance of a dense forest cut with an intricate labyrinth of channels, so numerous and close together were the islands.

Resuming our travels, we threaded our way through the islands along the Canadian shore to Six Mile Bridge, on which the Canadian Northern Railroad skips from island to island across a narrow part of the north arm of the lake. Here we turned northward beneath the drawbridge of the trestle. Spending the night on a small island not far beyond Six Mile Bridge, we passed Tug Point the next morning and entered the Manitou Sound at the extreme northern end of the lake. The sound itself, which varies in depth between five-hundred and six-hundred feet, is surrounded by dense banks of small islands, all heavily timbered with tall white and Norway pine. These islands with their rocky cliffs, mossy glens, and game trails leading out of the forest down to the water's edge make the Manitou Sound one of the most beautiful parts of Rainy Lake. Doc fished most of the afternoon at the Cascades, where a roaring waterfall tumbles into the Sound, and after travelling southward for an hour in the evening, we made camp for the night.

Setting out at six the next morning, we arrived at the International Draw-bridge at Ranier about nine o'clock. Here, where the Rainy River flows out of the lake, Pierre de la Verendrye, an early French explorer, built a fort in 1731 that was recognizable within recent years. For a century and a half after La Varendrye, Lake of the Woods and Rainy Lake had been the highway of the fur trade, travelled by the twenty-six-foot birch bark canoes of the Hudson Bay and Northwest Companies.

"Make your farewells to Rainy Lake," I said to Doc as we entered the swift current running beneath the International Draw-bridge, "We're now on our way to Lake of the Woods."

I looked back to align the targets that marked the channel, and a moment later we swept around a bend in the river which hid the lake behind us from our view. The smoky sky line of International Falls appeared down the river. Pilings on either side of the channel enclosed great log booms from which men with pike poles were feeding conveyors leading up to the hungry mouths of the saw mills. In the distance rose a mountainous pile of pulp wood. The docks and boat houses along the Fort Frances side of the river exhibited a heterogeneous assortment of decrepit and decaying hulls, lumber tugs, cruisers, and launches. We tied up at the City Dock of International Falls on the American side of the river and went off in search of a dray to carry our boat and luggage around the dam. Having found one that could soon accommodate us, we walked out on the bridge to see the uncompleted lock. It needed only a set of gates to make Rainy Lake and Lake of the Woods a navigable unit, though as to just

(*Continued on page* 84)

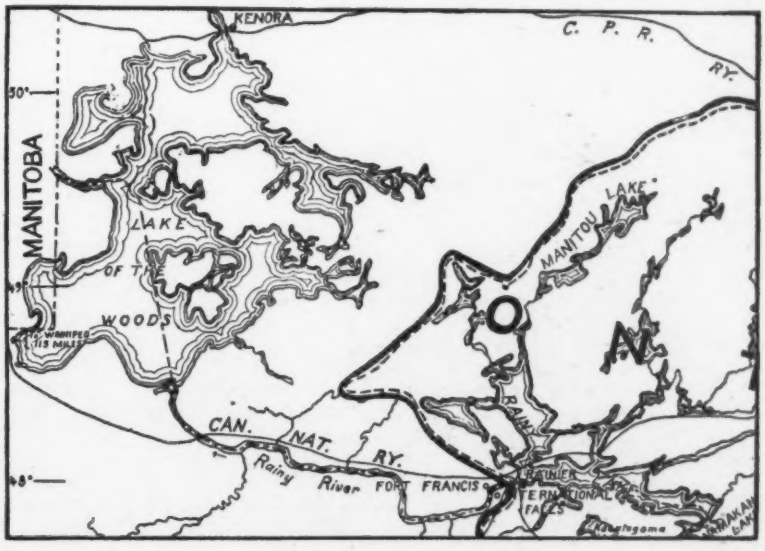


Chart of Lake of the Woods, the Rainy River and Lake on the Ontario Border

The dining room is located on the main deck forward and is finished entirely in teak

THE EXPRESS CRUISER WAYFARER

Winthrop W. Aldrich Enjoys the Comforts of a Fast Gasoline Engine Yacht Supplied with All Conveniences of a Modern Home

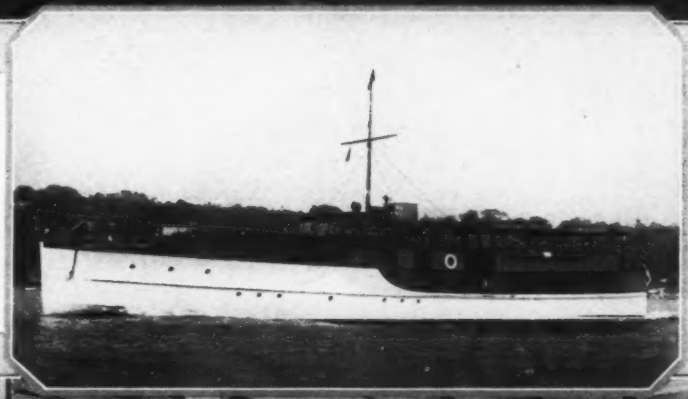
CONSPICUOUS among the new yachts of the past summer is Wayfarer classified as an express cruiser. This boat, 104 feet in length, was designed by Henry J. Gielow, Inc., for Winthrop W. Aldrich of New York. She took a prominent part in the cruise of the New York Yacht Club and was observed at all of the important yachting events of the season. She is arranged with a waterline length only a few feet shorter than the overall and has a beam of 17 feet while the draft is about 4 feet 6 inches. Wayfarer was built at the yards of George Lawley & Son Corp., at Neponset, Mass., and is powered with a pair of six cylinder Winton gasoline engines with a bore and stroke of 7½ by 8½ inches. These develop 300 h.p. each and are powerful enough to maintain a cruising speed of 16 knots. A high speed of 18 knots has been attained under favorable conditions.

The external appearance of this boat presents an excellent combination of hull and deck house arrangement. The forward portion of the vessel is rather high sided which gives her an abundant freeboard for heavy weather conditions. There is a break in the sheer line about midships and the trunk cabins in the after part of the hull have windows which open directly without obstruction by rails or bulwarks. There is a depressed deck house forward which encloses an unusually large dining saloon. This is 18 x 14 feet in size and finished in natural teak. Quarters for the owner have been arranged on the cabin deck and two double staterooms and two single staterooms with two baths have been provided. A separate stateroom for the owner has been built in on the cabin deck and adjoins the lounge on the main deck forward. This is directly connected with the large dining saloon and makes all portions of the owners quarters readily accessible. Large Pullman type windows are aranged to open by means of a window cranking device which affords an abundance of light and ventilation at all times.

In the engine room are the two 300 horsepower Winton main engines as well as two 5 k.w. Winton gasoline engine driven generating sets. These supply current for a large battery of Edison storage cells which can handle the electrical load at such times when the generators are shut down. A Cory ship telegraph system connects the engine room with the bridge for the rapid and proper transmission of signals from one place to the other. The propeller shafts carry a pair of Hyde bronze wheels and run on Goodrich rubber bearings which have done much to reduce vibration. A Lux fire extinguishing system is provided to protect the boat against this hazard.

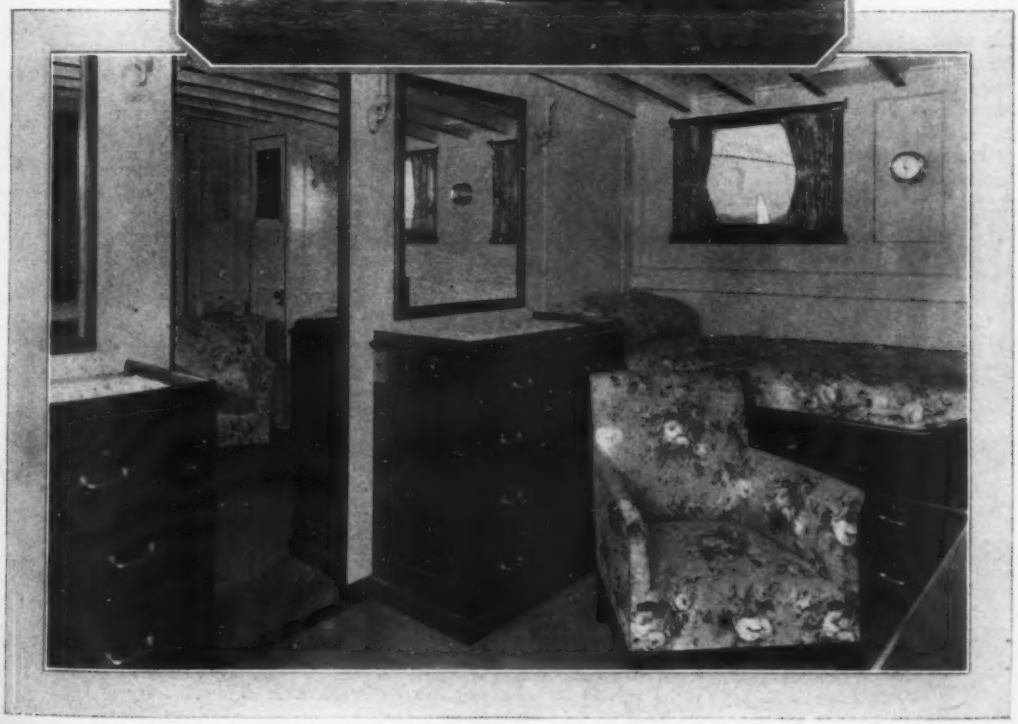
The after corner of the dining room showing buffet and built in seat

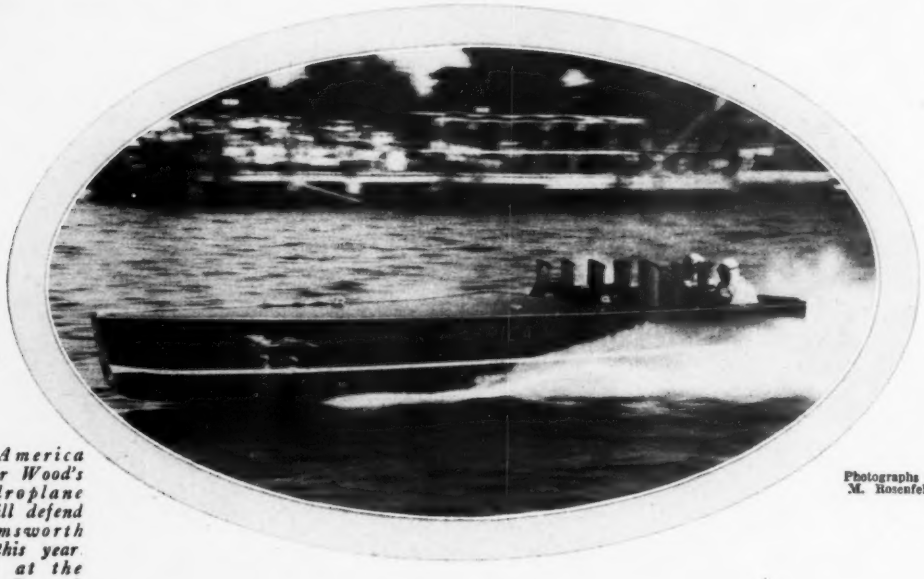
A glimpse into the guest staterooms below. Owner's room is on deck



E. Levick, Inc.

Wayfarer is 104 *feet in length and carries two* 300 *h.p. Winton gasoline engines which can drive her at* 16 *knots*





Miss America VIII, Gar Wood's new hydroplane which will defend the Harmsworth Trophy this year running at the Miami Beach regatta

Photographs by M. Rosenfeld

THE FIRST BIG REGATTA OF 1930

Miami Beach in its Annual Regatta Attracts Greatest Number of Entries so far this Year—New Outboard Rules Prove Great Success

ONCE again Miami Beach has shown that it is the world's center of winter racing activities. In its seventeenth annual regatta which was held on March 26 and 27 on the Flamingo course laid out on beautiful Biscayne Bay it was demonstrated that a winter regatta of national and major importance is possible. This regatta was quite a contrast to other racing events held in Florida this winter which have been staged to boom this or that locality or put on for more or less commercial profit or to attract the winter tourists. The regatta at Miami Beach was a racing event in every sense, planned for competition among those racing for sport alone and for yachtsmen.

More racing boats, yachtsmen, yachts, and spectators gathered for this winter's regatta at Miami Beach than ever before. A total of over 20 events were held during the two days of racing and the total number of boats starting was well over 150. The regatta was sanctioned by the American Power Boat Association and was held under the 1930 rules of this association. While some of the members of local Florida Outboard Associations, who are opposed to the 1930 American Power Boat Association rules which promote amateur racing, forecast that the races would be a failure, and some of these local associations did their part in attempting to make the races fail by boycotting Miami during the race meet, yet the success of the attempt of the rules to give an even break to the amateur and those racing for sport and sport alone as compared with monetary gain, proves that even in the

Roger Firestone who raced in the runabout and outboard classes at Miami Beach with Thomas A. Edison and Harvey S. Firestone, who were spectators at the Biscayne Bay regatta

The start of the class for 125 horse power runabouts

Commodore Ross Maddocks of Boston driving his Ludington outboard hydroplane which won the Colonel E. H. R. Green Trophy

hotbed of professional racing, many racing men can be found who are willing to abide by National rules. Not only did the regatta at Miami Beach attract more entries than have raced at any other regatta at Florida this winter including racing men from many points in the North and Central West but the competition was cleaner and closer than has been seen elsewhere.

This regatta gave the first chance in the East to test the new 1930 National outboard rules since they went into effect on January first. Their success fully demonstrated the claims of thousands of outboard racing men throughout this country that the rules are sound in principal and are bound to succeed if given a fair trial. While it had been predicted from certain sources that there would be no Division II drivers to enter in the various classes, open only to the amateur drivers, yet all these classes filled well with drivers which gave excellent racing.

As will be recalled, the new outboard rules provide that the hulls shall have a specified minimum weight. Many had claimed that these weights were too heavy and that few existing boats would be able to come within the weight limits. However, when the boats were weighed previous to the races, not a single boat was underweight and most of them were considerably overweight. That the rules provided for a safer and sane boat this year was also demonstrated by the smaller number of upsets than ever before and with no boats breaking up. On the first day, not a single boat capsized. The only two that capsized on the second day were in Division III in which there are no weight restrictions on the hulls.

The outboards were not the only racing boats which were provided with events at the Biscayne Bay regatta, as classes were provided for all types and classes of boats. Miss America VIII, Gar Wood's new boat with which he hopes to be able to show a speed of 100 miles per hour, made exhibition runs on both days of the regatta. While no speed or time was recorded as the course was only 1½ miles to the lap, which is too short for this boat to show her capabilities, yet the immense crowd present at the races had a chance to see Miss America VIII run and were thrilled at her bursts of speed when Commodore Wood, who was at the helm, opened

A large field of 151 inch hydroplanes giving an excellent demonstration of the popularity of these little boats

Some of the boats in the Class C outboard race

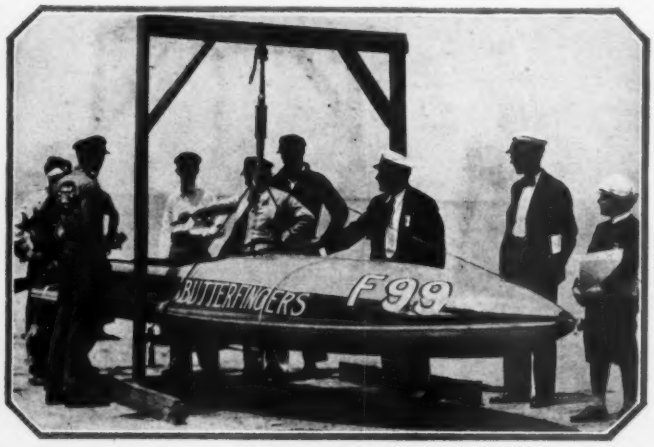
up the speedster on the short straightaway stretch of the course.

The 151 hydroplanes too, were at Miami Beach, practically all that are in commission this year, being entered. Elmer Johnson with his two Sparrows, Commodore Hammond with Miss Westchester, Commodore Chris Ripp with three boats, Miss Daytona, Bayhead II and Meadowmere II, Gibson Bradfield with two boats. Commodore Suero of Havana was also present with his 151 hydroplane, Habana II, the Champion of Cuba, together with several other owners.

Of the runabouts, there were many of all sizes and descriptions. Races were scheduled for runabouts powered with 55 h.p., 75 h.p., 125 h.p., 200 h.p., and 250 h.p. motors. Chris Crafts, Hackers, Sea Lyons, Gar Woods, Dee Wites, Ludingtons and Priggs were among the entries. Epress cruisers had their chances in a scratch race, also a handicap event and in each of these there were about ten starters. The express cruisers racing at Miami Beach is always one of the prettiest and most exciting events of the whole regatta and this year proved no exception, except that there were more of this type of craft competing than ever before.

The slower cruisers had their chance in a Chance Race but the turn-out for this event was not as large as was expected.

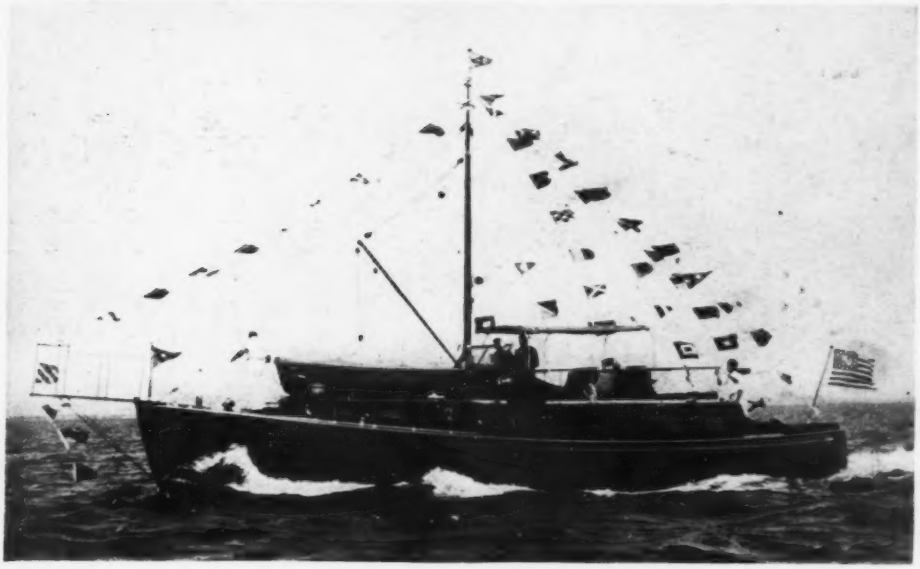
The Miami Beach regatta is held under the auspices of the Miami Beach Yacht Club which is composed of yachtsmen from almost every yachting center in this country. These yachtsmen who journey to Miami every winter to enjoy their favorite sport, made up the various committees handling the regatta details. Hardly a yachtsman of note in Northern racing activities was missing from the list of celebrities officiating. In this respect the regattas at Miami Beach each winter are unique. Such men as Commodore A. A. Schantz, C. W. Kotcher, George Harrison Phelps, Mark Hanna, Alex. L. McLeod, Carl G. Fisher, E. G. Sewell, J. Stuart Blackton, Jr., Richard W. Massey, Herbert R. Duckwall, H. B. Greening, Alan Hudson, Robert Oakman, W. B. Edenburn, Victor H. Erhart, P. M. Gelatt, W. E. Metzger, O. J. Mulford, E. J. Noble, Rafael Posso, W. B. Selby, O. E. Soverign, Walter B. Wilde, Gar Wood, R. A. Barry, Guy W. Ashley, H. W. Lyon, Bruno Beckhard, William Frey, Walter Godbey, Jr., Hyde Hopkins, Henry Thompson, William Sirman, Colonel G. F. Bailey, Joseph Copps, Steve Hannagan, Larry Smits, H. S. Bastian, Edwin Odette, F. S. Benedict, H. H. Mase, T. J. Pancoast, Odis Porter, William Crosby, M. Rosenfeld, Cliff Hadley, W. A. Irwin, Edward Treat, Colonel H. M. Bankhead, E. L. Keuling, J. P. Caldwell and many other yachtsmen of national fame were present in person and in charge of the various regatta details. C. W. Chase, Jr., Secretary of the Miami Beach Yacht Club acted in usual efficient capacity and much of the credit for the success of the regatta should go to him.



Bruno Beckhard of New York weighing the outboard boats as required by the new rules in Division II

In the Class B, Division II outboard race which consisted of two heats of three miles each, Full Quart driven by J. P. Maypole of River Forest, Illinois, came in first in both heats, followed by W. A. Wylie of Wildwood, New Jersey, driving a Johnson powered Ludington boat. In Division III, of Class B,

(*Cont'd on page* 82)



Raider is a 50-foot cruiser and sport fisherman powered with two Sterling Petrel engines

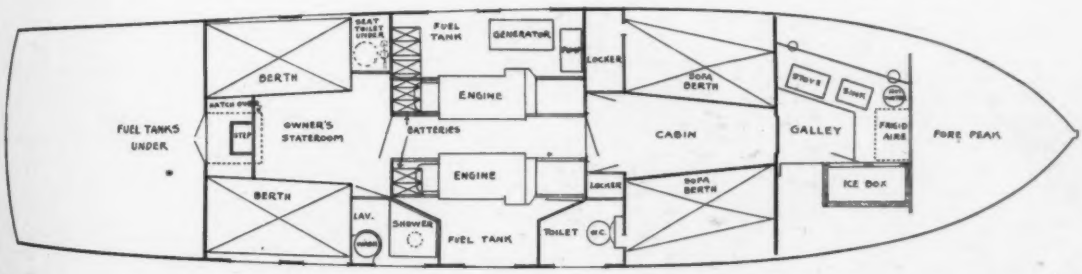
RAIDER—A DEEP SEA FISHERMAN

An Attractive Craft Designed and Built Particularly for Deep Sea Pleasure Fishing With Gear Adapted to This Sport.

A NOVEL combination cruising and fishing boat, called Raider, was designed by Tams, Incorporated, and built by the Consolidated Shipbuilding Corporation for A. E. Walbridge. This boat was one of the most spectacular new craft to appear in southern waters this winter. Her owner is one of the most ardent sportsmen who makes a successful effort each year to add to his collection of deep sea specimens and tries particularly for the larger species of game fish. Heretofore he has been handicapped by poorly designed boats which were not properly equipped for this work. In this new craft, Mr. Walbridge determined to have his ideal design properly laid out and constructed. Raider is the result of this effort and meets all the requirements for running down the elusive Florida coast game fish. He states that Raider has met his requirements in every particular, while her equipment makes this hazardous sport an interesting and thrilling experience.

Raider has been built with a length of 50 feet and a beam of 12 feet. The design generally features two double rooms, one forward and one aft, which are finished in knotty pine. The exterior joiner work of the cabin trunks is entirely of mahogany. The arrangement plan shows how the cabins are divided and also illustrates the exceedingly large cockpit aft for trolling. For harpooning a specially designed platform has been arranged at the bow. This is so constructed that it can be readily shipped and unshipped. Another useful device is the mast and boom rig which simplifies the labor involved in landing a large specimen or picking up a small boat.

In the engine room there are two Sterling Petrel engines which are able to drive the boat at 21 miles. The main fuel tanks are located under the cockpit in the stern while the water tanks are placed under the berths in the after cabin. Raider, after having been in service throughout the winter in Florida has now returned north and will be extensively used for sword fishing off Montauk during the summer.



The arangement plan of Raider which was designed by Tams, Inc., and built by the Consolidated Shipbuilding Corporation

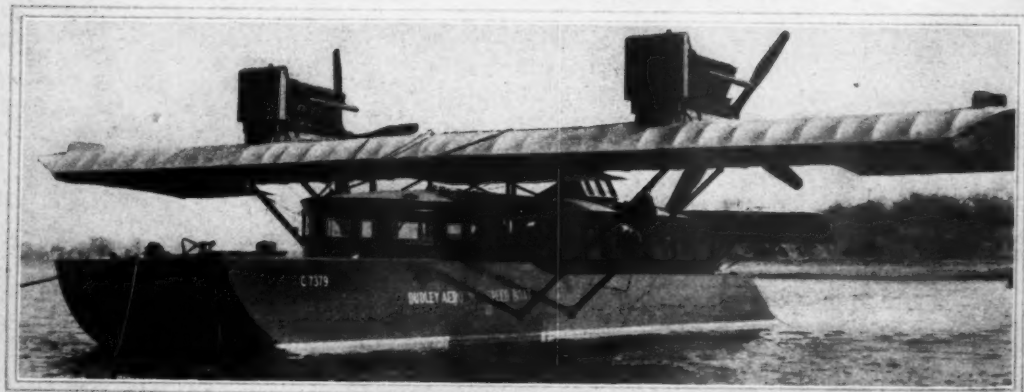
THE FASTER THEY GO THE BETTER THEY ARE

Gravelle

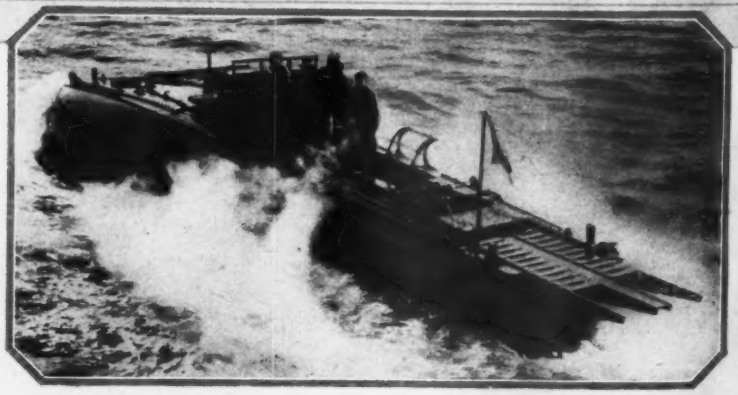
Wherever important racing events are held, Eddie Edenburn and Odis Porter appear to take charge. They are examining the electric timing tapes of fast boat runs at the Miami Beach Regatta

A Chris-Craft Commuter which undertook a one day non-stop run from San Francisco to Los Angeles in competition with the fastest train time

P. & A. Photographs



Silver Eagle, an odd craft with a boat hull and airplane wing, designed and built by Paul K. Dudley of Massachusetts. He hopes to attain high speed with his ship

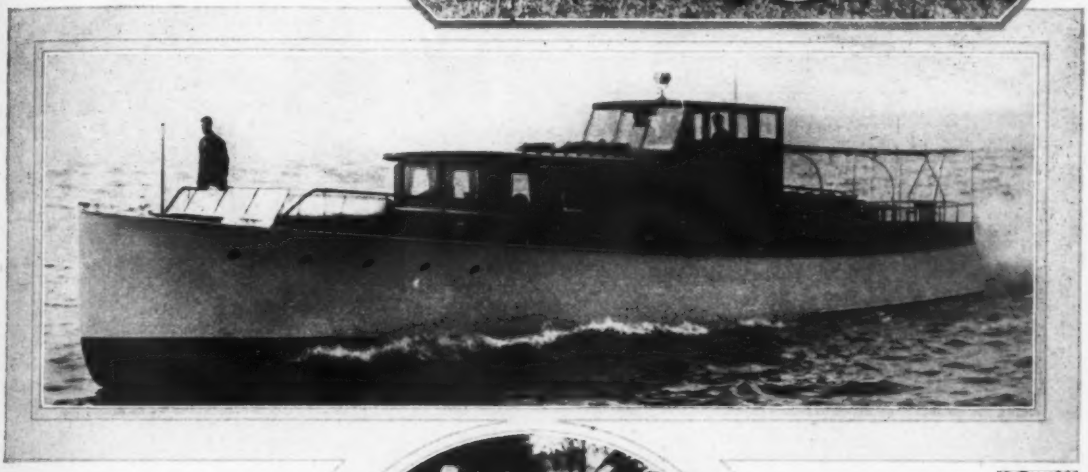


A fast coastal motor boat built in England for a foreign power. It is similar to English boats of the same general type and does 45 miles with a pair of powerful engines

New and Novel Boats and Interesting Devices to Create and Keep Track of Continually Mounting Speeds

Commodore Schantz, Gar Wood, and Harry Greening inspect the new course measuring machine used at Miami Beach for the first time to check length of course

Gravelle

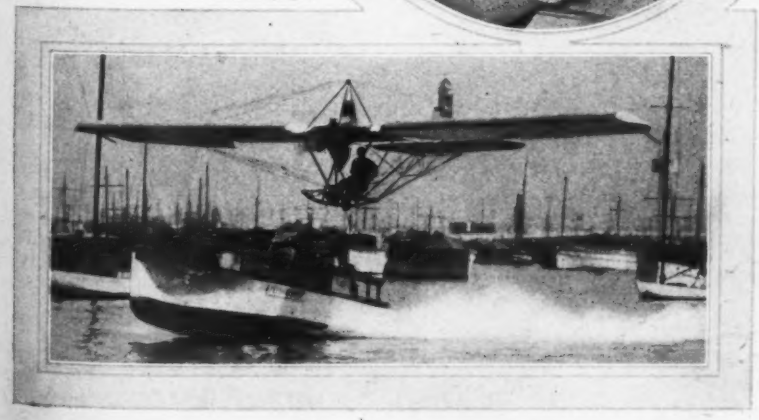


M. Rosenfeld

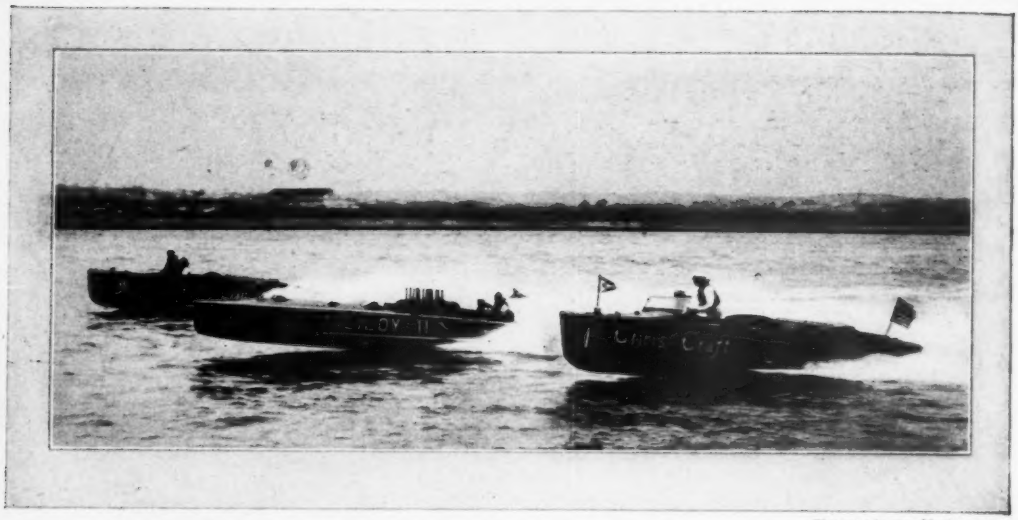
Annabar, a 72-foot fast commuter designed and built for Ex-Gov. Cox of Ohio by the Purdy Boat Works, Port Washington, L. I. She uses two 12-cylinder Treiber Diesel engines to attain a speed of 29 miles

P. & A. Photographs

An improvement on the paddle. Chief Young Turtle has Dorothy O'Hara explain the white man's improvement for canoe propulsion during the Los Angeles Boat Show



A new stunt. Clyde Schlieper successfully launches and lands his small Crawford plane from a small platform on Joe Fellows' express cruiser at 45 miles speed in the harbor of Long Beach, California



Photographs by M. Rosenfeld

An unequal race between two Chris Craft runabouts and a Liberty engined Cuban boat of double their power

HABANA SPORTSMEN ENTERTAIN AGAIN

Ninth Annual Regatta at Habana, Cuba, a Colorful Affair Attended By Many American Visitors and Contestants

By WILLIAM McP. BIGELOW

WHOEVER first spoke the well used adage that "time changes all things" certainly must never have had the privilege of accepting Cuban hospitality, for in each successive year the American boat racing devotees journey to that tropical isle they have always found—and no doubt always will—the same warm cordial and friendly greeting awaiting them. Time does not seem to deduct in any manner the enthusiasm these delightful hosts seemingly enjoy in making their guests comfortable and happy with the always interesting Habana.

During the Miami regatta Senor Rafael Posso, ever popular yachting representative of the National Tourist Commission of Cuba, arranged with the American boat racing men to attend the Cuban regatta, which was held March 29 and 30. About forty persons made the trip over and back aboard the Clyde liner Evangeline. This number included several wives and children of the yachtsmen. The boats themselves were also carried aboard the same liner this year.

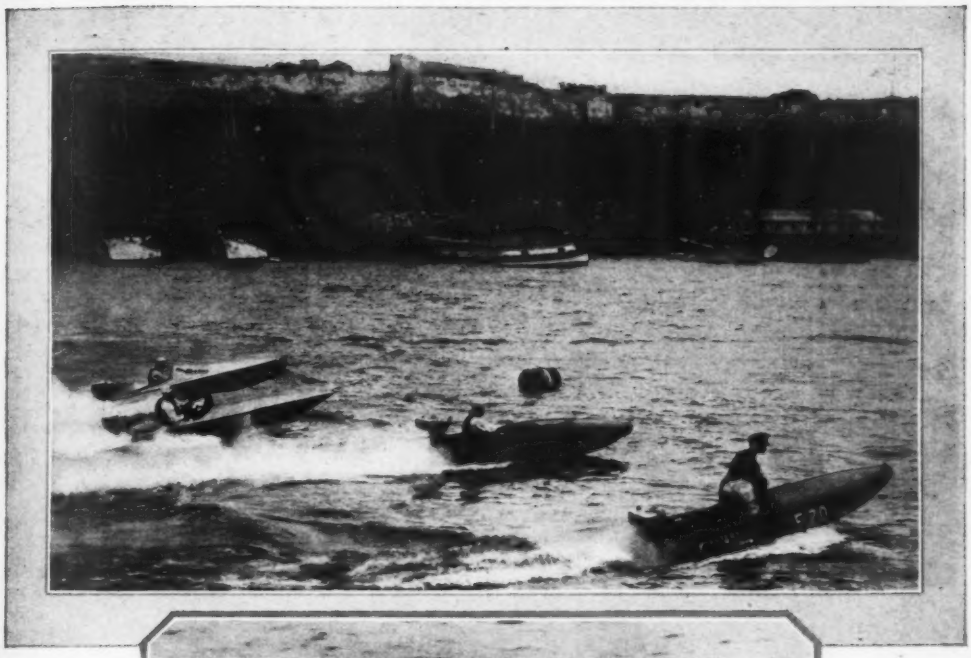
The regatta opened with races during the afternoon of the first day's arrival; but with rather disasterous results because of rough water and wind. The race boats were placed upon a large barge which was moored alongside the new Malecon just inside the entrance of the harbor. A large crane was used, as is the usual custom, to lower and raise the boats but a slight mishap occurred to the crane which caused some damage to one of the runabouts and which eliminated it from the events of that day. Another crane was rushed into service and the races were started—or rather those which could be, as by that time the ground swell was running too high to allow the boats a fair chance.

A group of Cuban and American race officials with Dr. Cabrera, Comm. Posso and William Bigelow in the front row

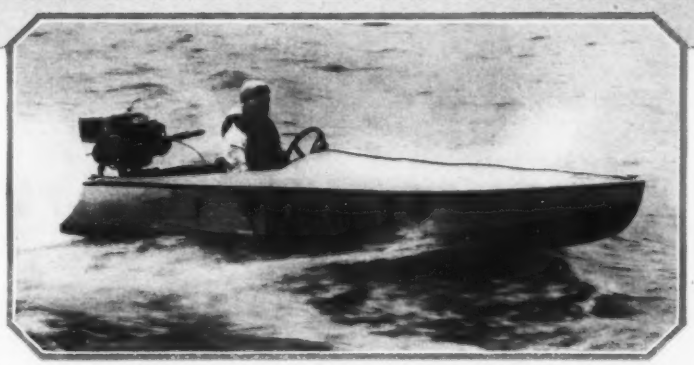
Kokofat and Mary II, both Cuban entries, in the order named, followed by Modernistic Rythm, an American entry, were the first three to finish in the first heat of the amateur class outboards. The time for this event and others during the first day were quite slow on account of weather conditions.

In the next event the 151 class hydroplanes attempted to display their usual attractive racing but after plowing through the waves for several minutes those which were awaiting others to get started decided to give up the attempt and returned to the barge.

At this point, however, the only accident to mar the regatta took place when Ramon Suero, driving his 151 class boat Habana II, was completely swamped by a wave with the result that it was impossible to get a rope on either the hull or the



The heavy seas in Havana harbor made the going difficult for the outboards



Kokofat, a Cuban outboard which competed in several of the events

motor before it sank in about seventy feet of water. Suero was easily rescued whereupon a great deal of sympathy was tendered him.

One other event was successfully carried off; that being the free-for-all runabout event, first heat. The two entries, Madoshumi III (American) and Lililoy II (Cuban), ran perhaps the most entertaining and by far the most spectacular race of the regatta. By this time the seas were quite strong and high for boat racing with the result that with the speed the entries made, great sheets of flying spray were thrown skyward and wide as the boats leapt from crest to crest. This action seemed to delight the thousands of spectators who lined the shores and roofs of houses for hundreds of yards near the scene of the races. After this race all further events were postponed until the next day.

Sunday the thirtieth unfortunately, was not much better than the day previous and it was necessary in order to continue the races, to move the course up into the back harbor. This body of water proved to be very suitable and all the events were finished at this point.

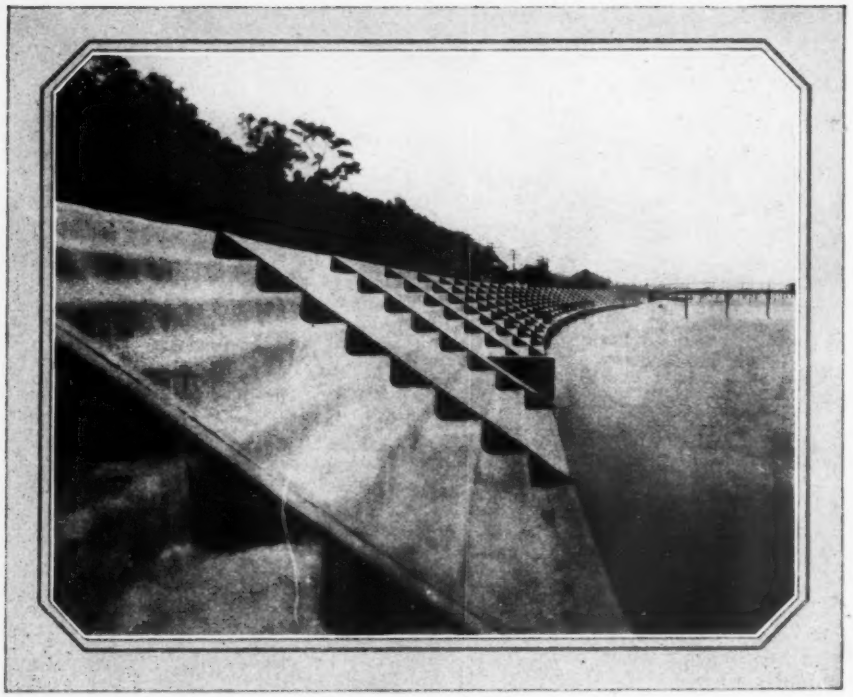
Modernistic Rythm climbed up into first place in the amateur outboard event, second heat, with Vampire and F 11 close behind. In the next outboard event which was rather a free-for-all but with two prizes for one race—one for amateurs and one for professionals—Century Hurricane led in the first heat followed by Mary II and Vampire. In the second heat of this event the same entries repeated their respective places at the finish.

During this second day of racing the two heats for the stock runabouts were run with the result that the only two entries, both American, made an interesting race for the spectators with Madoshumi III capturing both heats from Chris Craft number 5. At odd times these two boats entertained the crowds by putting on some fancy exhibitions of what a modern runabout can do.

In the 151 class limited events—three heats—Bay Head II, a consistent winner owned by Chris Ripp and driven by Al Lovette, took first place in the first two heats and second in the third. Miss Meadowmere, another Ripp entry and driven by his son Frank, captured two seconds and a first place. Yllamba II driven by A. Ovies, a Cuban entry, ran third in the first heat.

In the unlimited 151 class events several additional boats took part. Miss Daytona actualiy won both heats but was disqualified in the last for cutting a buoy. Following her in the first heat was Gibson Bradfield's Buckeye with Elmer Johnson's Sparrow in third place. In the second and final heat Buckeye was awarded first place with Yllamba II second.

The second and third heats of the free-for-all runabouts resulted in a clean sweep for the Liberty powered Cuban Lililoy II, owned and driven by C. Montalyo, with the two Chris Crafts *(Continued on page 108)*



The Harrison County, Miss., seawall provides protection plus decoration in an interesting geometric line

BUILDING AGAINST THE WAVES

The Destructive Power of Storms and Seas Requires Substantial Engineering Structures To Protect Waterfront Properties From Damage and Erosion

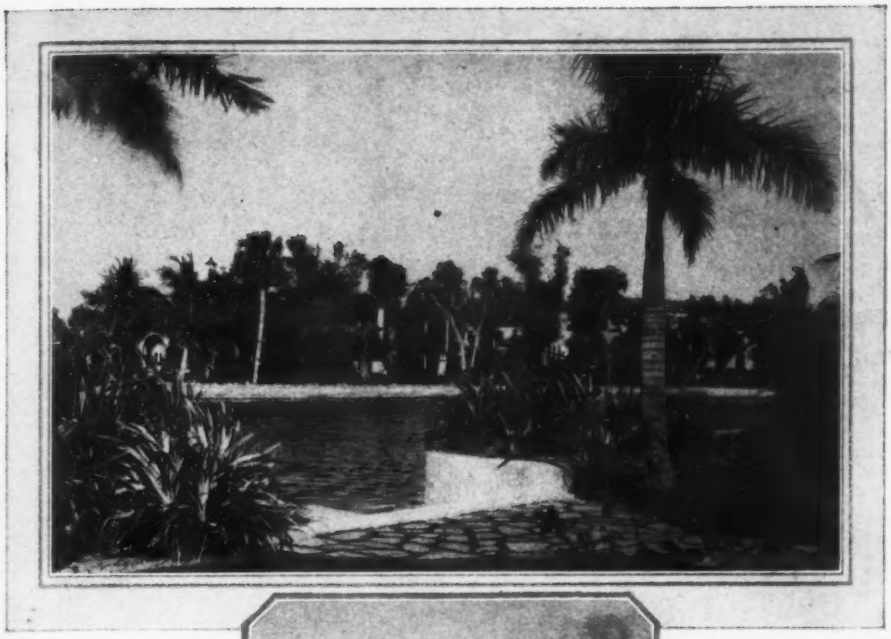
By JOHN F. RYAN

LAST year several storms came roaring out of nowhere to batter shore fronts throughout the country. The toll amounted to several score millions of dollars before the year was out. But even so, 1929 was not unusually damaging and oddly enough we can probably expect a repetition this year, and next year and probably for several years to come.

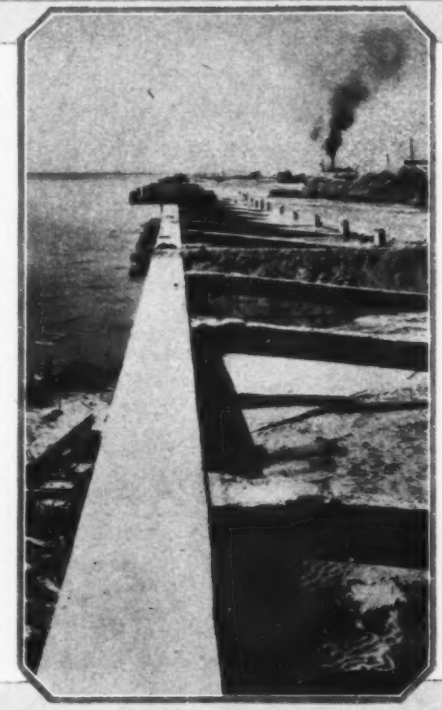
The annual damage to shipping, boating, and waterfront property is hard to measure in terms of dollars and cents, and the expenditures for replacement or rehabilitation are apt to seem so much waste in the face of future storms unless measures are taken to make harbor and shore protection permanent.

The old story about the hole in the roof, never patched in dry weather because patching wasn't needed, and never patched in wet weather because it was then

A view of the step face sea wall protecting the ocean boulevard near Biloxi, Miss.



The owner here has provided a decorative gateway in order to give easy access to his craft



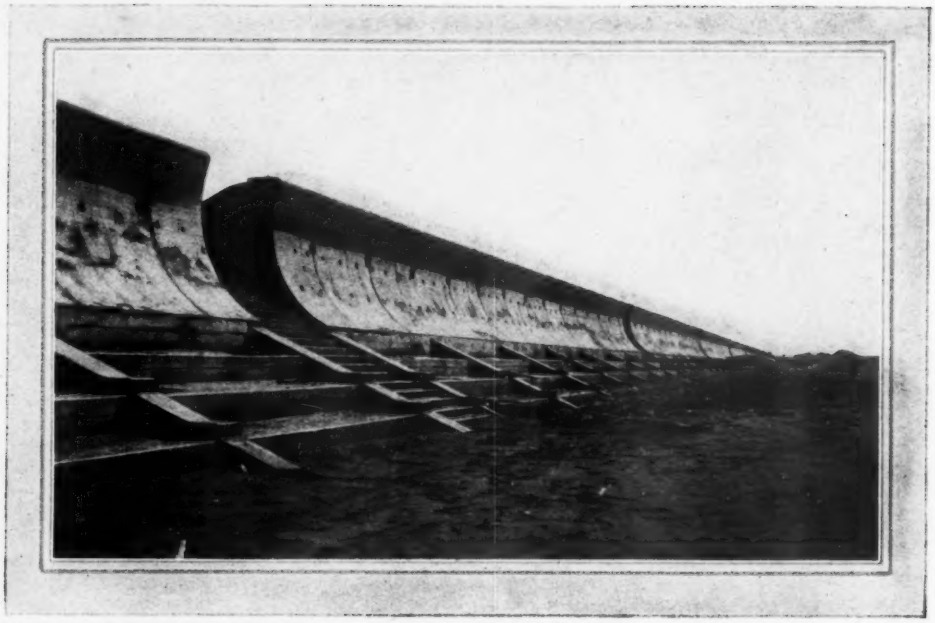
A reinforced concrete seawall which is securely anchored with steel, concrete protected

too late, often applies to many a local water-front situation. Too often a municipality is content to let its waterfront rest in fair weather, and what last minute measures can be taken during foul weather are usually for no gain.

One day last winter, a capful of wind picked up the waves along the eastern shore of Lake Michigan. More wind followed the capful, and by the time it had reached the western side a moderate sea was running. For the most part, Chicago's waterfront, and waterfronts along the entire suburban North Shore, were protected only by inadequate piling and scantily paved beach sections. The storm, as storms go, was not terrific but it was bad from the standpoint of an almost unprotected Chicago.

Pounding water crushed in sections of the lake front like so much egg shell; long areas of waterfront driveways were washed out or torn up; boats in unprotected harbor areas were battered, smashed, or thrown completely out of the water and beached; one section of park boulevard, a show street in Chicago, was completely out of service for six months. Lake Michigan even though troublesome at times is no ocean, and similar expensive play at the

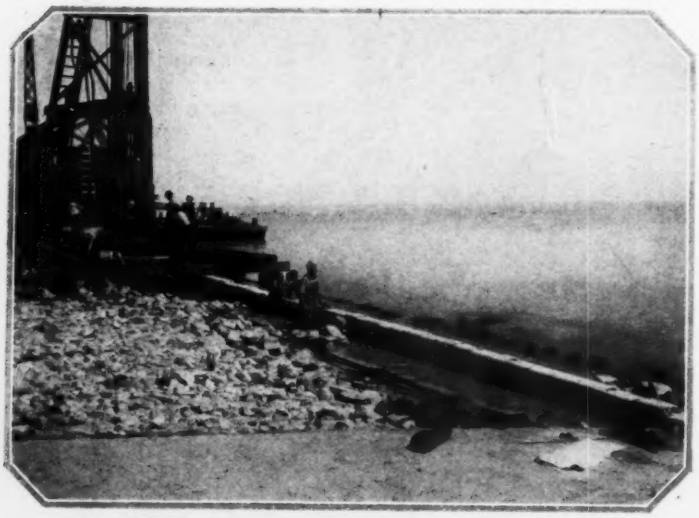
The famous Galveston, Texas, return face wall. Note the granite rubble



A combined step-and-return face wall of unusual design at San Francisco, California

hands of raging waters has been felt many times to greater extent on the sea coasts of other states. With twenty-seven states and four Canadian provinces fronting on the various oceans or Great Lakes, the problem of shore front protection becomes not merely local, but national in scope.

Protection of shores is undertaken for various reasons; private buildings or commercial shipping interests need safe harbor, waterfront property must be protected, or soil must be kept from destructive erosion. Depending on the local case, the type of protection will vary, but whatever the situation, any form of protection which is weaker than the greatest maximum strain to which it will be subjected can be considered only as temporary protection. Sooner or later an unexpected storm will roll up and smash the work which was considered ample for normal times.



Sheet pile driving operations in progress along the shore of Lake Michigan. Note the row of old wood piles directly in front of the sheet piling

It seems difficult for some to believe that the actual hitting pressure of a wave in a severe onshore storm may exceed 6,000 pounds per square foot. With such pressures to be expected, combined with earth pressures from the backfill, weather effects, chemical deterioration from the water and encroachments of marine borers, it will be seen that the construction of a seawall or harbor bulkhead is not to be entered into without plans. The construction of shore protection structures is an engineering problem which is deserving of careful attention.

There are no general rules which apply to the construction of shore protective devices. This is due primarily to the fact that local conditions are greatly at odds with one another, and measures applied in one locality may be wholly unsuited for another. Generally speaking, structures will fall into several classifications; harbor developments, requiring well designed bulkheads, docks and wharves; breakwaters, for protection of beaches and waterfront property; seawall, structures parallel to shore lines to break up strong wave action. Jetties may also be included.

For the small yacht harbor or other sites subjected to only moderate wave action, concrete sheet pile bulkheads will give perfect satisfaction, but sturdier stuff will be required for a successful seawall. In several of the Atlantic states, Florida particularly, past experience with storms has dictated certain policies of construction. In most cases, foundations are placed in sand, and in such localities specimen borings should be taken before the concrete piles are jetted in for the wall foundation. It is of paramount importance that the foundation cutoff wall be tightly placed so that percolating water will not wash out the supporting backfill.

The cutoff wall must be not only proof against the pounding action of

An owner built wall of straight face design on the Mills Estate near Chicago

waves, it must be tight enough so that water which splashes over the barrier will not trickle through to the main body of water. The gospel of watertight bulkheads and foundations can not be too loudly sounded for in past cases the large number of failures have been due to erosion below the ground line and the eventual washing out of supporting members. Sheet piles, with rugged joints, seem to afford good stability and watertightness at these particular points.

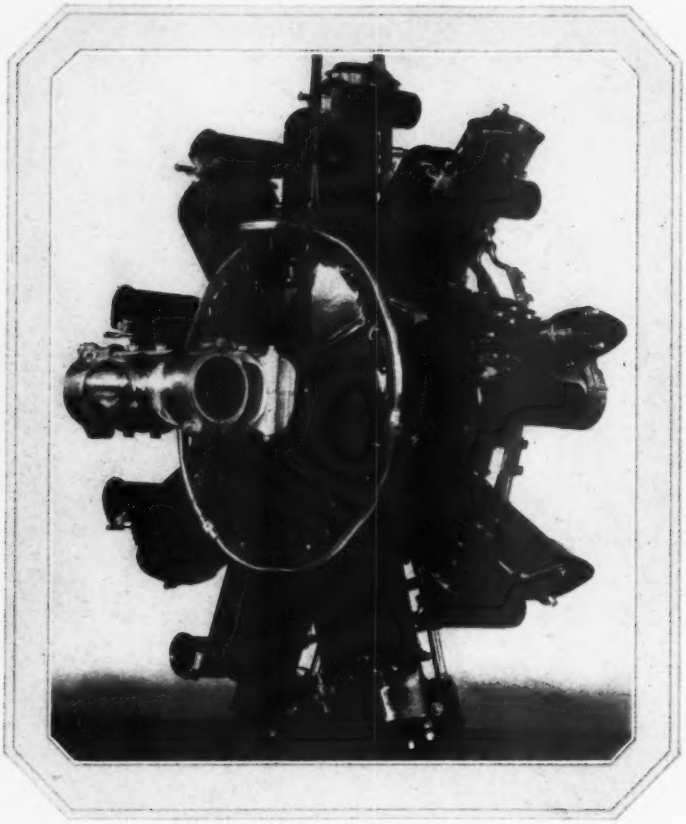
In other ways structural strength is not the only requirements for the seawall, as a number of municipalities have found to their sorrow. Durability and watertightness, incorporating strength, are perhaps the greatest factors to be considered. The exposure to which the finished concrete would be subjected is a feature often overlooked. For instance, an eastern municipality constructed a simple concrete wall a few years ago. The finished concrete was designed to have an ultimate compressive strength of 2,000 pounds per square inch. In two years' time the wall was badly impaired by the action of salt water and the changes in weather—two features which were not considered when the structure was originally built.

In this particular case there were two agents, a physical one, and one which may have been chemical, which led to the destruction of the concrete. If these causes had been taken into account in the first place, a type of concrete could have been provided which would have been proof against destruction. While the exact action of salt water is not completely understood, engineers today know how to eliminate its bad effects to a great degree in making concrete. Penetration of moisture to the interior of the concrete must be guarded against by mixtures which are dense and plastic. Excessive water usually means that voids will form in the finished mass—and consequently become an invitation to disintegration.

Usually, a study of mixtures involved in building existing structures in a given locality will furnish an index as to the proper ratio of cement and water to be used in a successful seawall. In this item, as in others upon which proper shore protection is governed, local conditions will largely determine best practice. Thus, construction which is absolutely essential for proper protection of one shore line may be wholly unsuited or too extravagant for another.

There are several features of seawalls and other waterfront protection structures which utilize combined architectural and physical factors. The parabolic return face wall, employed at Galveston, on the Pacific Coast, and around Boston generally, is not only an intensely practical buffer against the waves, but its interestingly curved line (*Continued on page* 90)

This seagoing seawall fronting on a Florida coast was carried out because of insecure footing. An adequate and watertight cutoff wall would have kept water seepage from undermining the surface structure



The new nine cylinder radial Packard diesel engine for aircraft. Turns at 1950 r.p.m., and delivers 225 h.p.

A FLYING DIESEL ENGINE

Newest Radial Aircraft Power Plant as Built by Packard Has Been Successfully Flown and Produces 225 H.P. on a Weight of 2.25 Pounds Per Horsepower

A REMARKABLE adaptation of the diesel cycle of engine operation has been made by the Packard Motor Car Company in their new nine cylinder radial air cooled diesel aviation engine. This machine has been developed to the point where it will produce 225 h.p. at about 1900 revolutions. Its weight has been kept down to a total of 510 pounds or 2¼ pounds per horsepower. The usual diesel engine of the light weight class in general use has generally weighed from ten to twenty-five pounds per horsepower so that the achievement of the light weight of this particular machine is all the more noteworthy. In fact, its weight is slightly under that of comparable gasoline aviation engines which average slightly more than 2½ pounds per horsepower.

The reduction in weight has been achieved largely through engineering refinements and by the elimination of all accessories such as carbureters and ignition devices which are not essential in the diesel type engine. These machines operate by injecting a minute amount of fuel oil into the combustion chamber where it is ignited by the heat generated by compressing a cylinder of fresh air to a pressure of about 500 pounds. The temperature gathered is sufficient to ignite the oil positively so that the engine will run without faltering. Variations in speed are achieved not in the usual form by throttling the amount of charge admitted to the cylinder, but by reducing the volume of fuel injected. A full charge of air is admitted into the cylinder at every stroke, the amount of fuel which is controllable determining the speed and power produced. A previous high speed standard was considered to be about 1200 revolutions and this engine exceeds this by about 50 per cent. There is no reason why higher rates of speed are not possible since the controlling factor in the case of this engine was not the top limit of its speed but rather the most efficient speeds for the propeller which has been found to be about 2000 revolutions. Beyond this the efficiency falls off so that there is no advantage in increasing the revolutions.

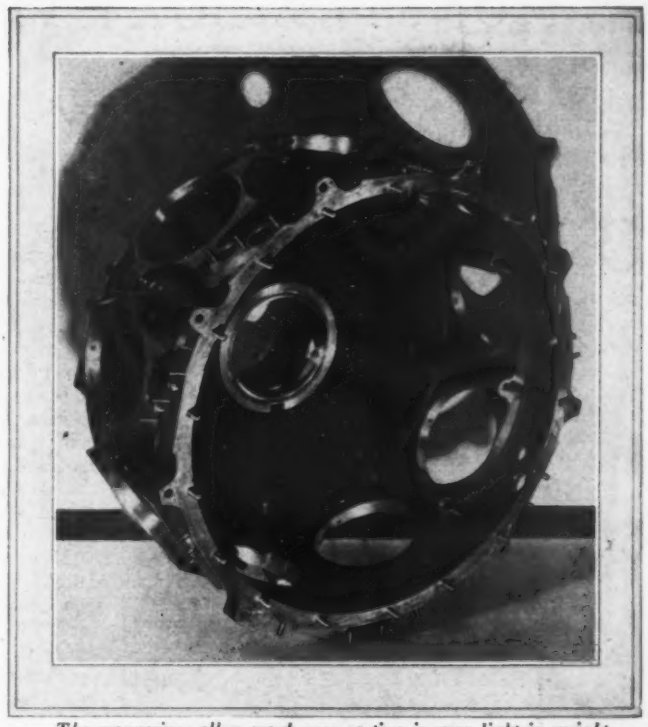
The low weight and high speed are not the result of accident, but the result of much painstaking study and ingenuity. The engine in its present form cannot be considered radical but follows sound engineering theory throughout.

For the particular service for which these engines

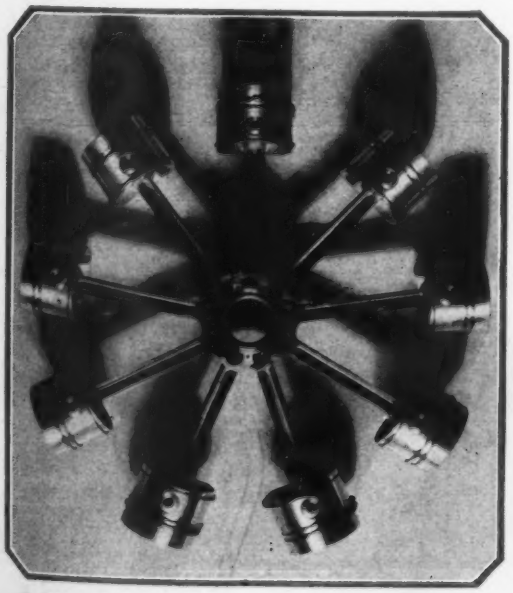
have been designed they possess many advantages. Their fuel economy is stated to be about 20 per cent better than a similar gasoline engine. This means that for the same volume of tank space, the engine will operate for a longer time, or conversely a similar weight of fuel will occupy less space in the plane thereby increasing the useful load carried. A safety feature which is quite pronounced is the fact that each cylinder is provided with its own fuel pump. Such units as are common to a group of cylinders, and which would cause a possible failure in engines so arranged by a failure of the unit, are entirely absent in the diesel engine. There can be no failure of the entire machine. Any fault which might develop in a single cylinder would not affect the remainder in the slightest, as the engine can operate with one or several of the cylinders entirely out of service and still perform splendidly on the remainder. Such faults as the formation of ice in the carbureter is eliminated entirely in this machine since there is no carbureter.

The starting ability of the engine is remarkable as it will start instantly. Once started it will run steadily without requiring any further care or attention. A peculiar feature about the fuel used in engines of this kind is the fact that it is very difficult to ignite. Quantities of fuel oil have been thrown over one of these engines when running at full speed without a fire hazard. The most suitable oil for use in these is Texaco Air Diesel now generally available at many stations. This oil will not burn unless finely atomized. A lighted match can be dipped into a dish of this oil without igniting and a small flame can be extinguished by pouring oil on it.

The cylinder heads are distinguished by novel features. A single overhead valve serves both as the intake and exhaust. The heavy stresses set up in the crankcase by the reaction of the cylinders have been absorbed, not by a massive crankcase but by a light weight magnesium casting, housing a light crank-shaft with counter balance weights. The cylinder reaction stresses are absorbed by two circular hoops of special alloy steel which hold the cylinders to the crankcase. By this means the stress on the cylinder blocks is compression rather than tension, which is more readily absorbed.



The magnesium alloy crank case casting is very light in weight and by clever engineering stresses from the cylinders are carried around it



The master connecting rod and piston with the remaining eight assemblies pinned to the master

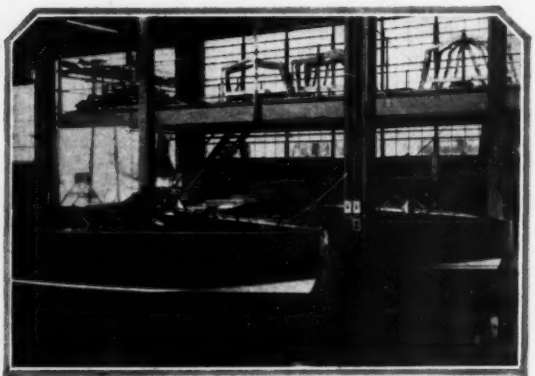
The bore and stroke of this machine is 4-13/16 inches by 6 inches, giving a total piston displacement of 980 inches. In order to run these engines at a speed of 2000 revolutions, it is necessary to inject a carefully measured amount of oil into each cylinder at the proper time. This drop is a little more than 1/8 inch in diameter and must be injected in the form of a fine mist. The pressure behind it is about a thousand pounds so that it will enter in a proper condition. In an engine of this kind it requires less than one four-thousandth of a second to inject the oil. It enters at approximately 45 degrees before the piston reaches top dead center, and about two hundredths of a second later, that is, when the piston has just passed top center the combustion is in full progress and the piston moves down. As an aid to proper combustion, a special form of cylinder head is employed which gives added turbulence so that a thorough mixing of the oil and fuel result. The operation of the engine admits air to one side of the cylinder head. The passage to the valve is curved so as to set up a whirling motion in the air, which is still further increased as the compression takes place. The fuel being added at the proper time completes the mixture resulting in complete combustion.

The compactness of the fuel pump and nozzle unit has done much to still further reduce the weight of the complete engine. A separate pump is mounted on each cylinder so that the tubes and passages are of the shortest possible length which avoids a lag in the supply of fuel. Another difficulty (*Continued on page 92*)

MONSTER BOAT PLANT OPENS

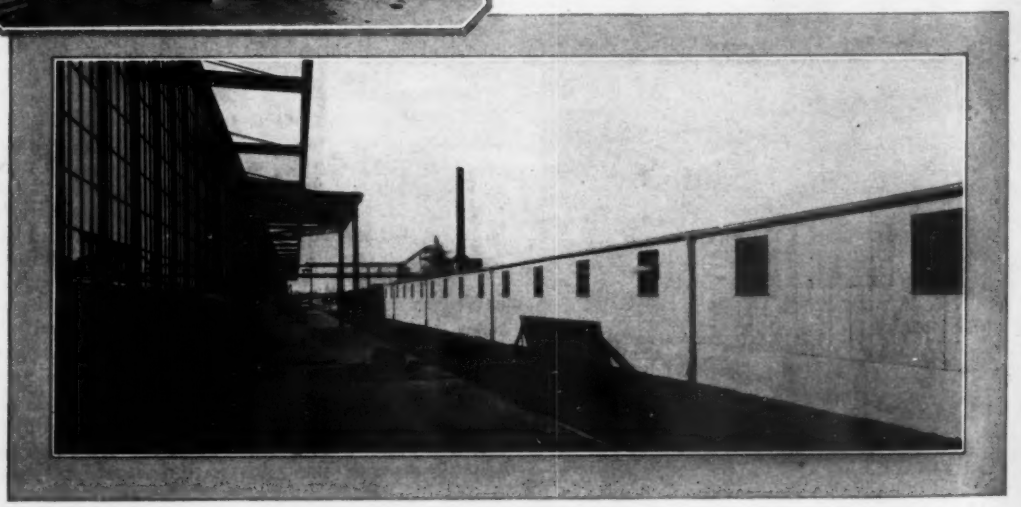
Quantity Production of Motor Boats Begins in Earnest at the New Horace E. Dodge Plant at Newport News, Virginia

ON March thirteenth a new factory equipped for the straight line quantity-production of motor boats on a scale comparable with the mass building of standardized automobiles, opened at Newport News, Va., with a schedule, carefully prepared during the past two years, for the production of over 4,000 runabouts in its first year of operation. It is the new $2,000,000 plant of the Horace E. Dodge Boat and Plane Corp., whose new fleet of six runabout models were exhibited to the public for the first time in January.



Two of the 16-footers and storage rack above

One of the electrically driven band saws in the factory



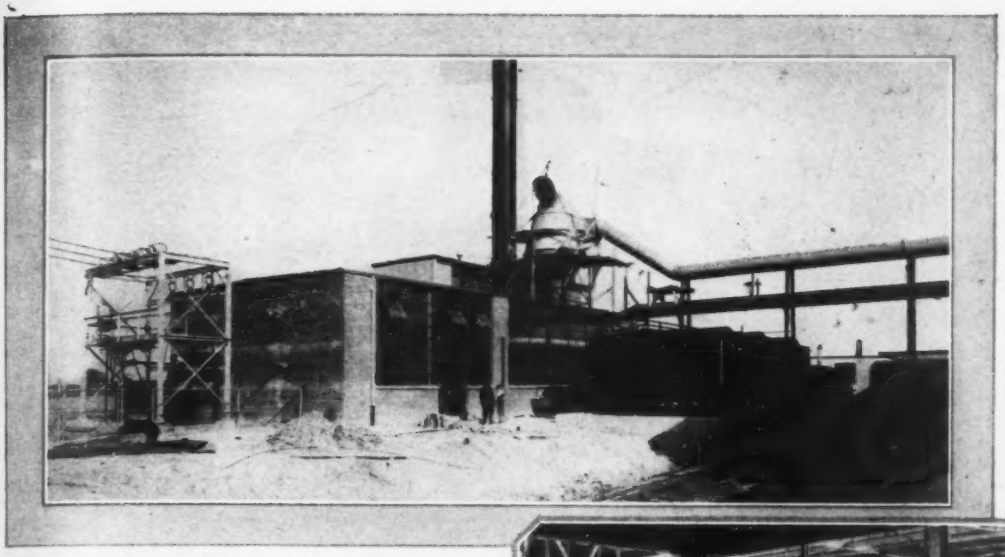
Railroad siding running between main building and storage shed

Features still in course of construction are the erection of an immense concrete dock 330 feet long and 35 feet wide and the creation of a salt water testing basin and channel requiring the dredging of 67,000 cubic yards of sand and mud which is being used in the landscaping of the hundred-acre property of the company on the shores of Hampton Roads. It is expected that this work will be fully completed by May first.

More than 575 tons of steel were used in the main building which measures 126 by 700 feet, is of steel and concrete construction and contains over 210,000 square feet of usable floor space.

On the opening of the plant production was started, on the assembly line basis, on the 16-foot Dodge runabout and the 21-footer, the parts for hundreds of which have been fabricated and forwarded to Newport News from the company's Detroit plant. Production on these models has been discontinued at Detroit. Work on the 25 and 28-foot models continues at Detroit for a short time but will be taken over entirely by the plant at Newport News and the Detroit plant closed.

The Dodge Company's new national sales headquarters have been opened with 4,000 square feet of floor space and a display of all models of Dodge boats and Lycoming motors in New York, where executive offices are also situated, under Kenneth N. Smith, national sales director. The company has appointed more than 100 distributors and dealers in this country and abroad since January, a majority of them being,



Power house and oil storage tanks

now or in the past, engaged in the merchandising of automobiles, but setting up separate organizations for their motor boat activities.

The first of the 16-foot runabouts produced at the Newport News plant, equipped with a 40 horsepower Lycoming motor, has been subjected to the most severe tests in tide rips and heavy northeasterly winds on Hampton Roads. In spite of adverse conditions, a new stiff motor and a load of two passengers, she made an average speed in her trials of 30.7 miles per hour and proved to be a remarkably capable and dry sea boat. These tests, following others of a similar nature in Florida and Detroit, conclusively proved the 16-footer to be a safe, fast, seaworthy craft. She planes in her own length and provides the dryness and riding qualities of a much larger craft.

Details of construction and equipment of this, one of the greatest motor boat factories ever built, follow. The plant was built in record time, under the supervision of the Philip L. Small Company of Cleveland, Ohio, engineers and architects and the Virginia Engineering Company of Newport News, Va. Contract was awarded October 26, 1929. Ground was broken November 1 and the plant was open for operation March 13, 1930—a new record in the motor boat world.

Working from a carefully determined system of time, study, routing, planning, follow-up and control, this plant has been laid out to produce boats through straight line production methods, with the efficient and economical use of time and space.

The group comprises:

1. A boat factory building—126 by 700 feet.
2. A boat storage building—78 by 340 feet.
3. A heating plant and machine shop building—40 by 85 feet.
4. An office building—30 by 75 feet.
5. A lumber storage shed—35 by 120 feet.
6. A watchman's house—18 by 25 feet.

All are located on part of the hundred acres of the Horace E. Dodge Boat and Plane Corp., overlooking Hampton Roads, Va.

The highly specialized production has its beginning at the north end of the factory building, where the

(*Continued on page* 116)

Electrically driven rip saw

A triple drum sander in the boat shop

Monster 500 boat storage shed

Main assembly floor of the Dee-Wite plant in Detroit

BOAT PRODUCTION CAPACITY INCREASED

Detroit Boat Builder Completes New Factory Unit To Provide Additional Production Facilities In All Departments

PROMINENT among those Detroit companies to report increasing operations preparatory to the spring selling season are the manufacturers of Dee-Wite all-mahogany motor boats. According to Joseph B. Lodge, general manager, this company is increasing its production facilities in all departments in order that it may be able to make prompt deliveries to the ever widening circle of Dee-Wite owners.

Not only has it been found necessary to erect a new factory unit containing some 10,000 additional square feet of floor space but it has also been necessary to install a complete monorail system for transferring boat hulls in various stages of production from one department to another or from one building to another.

Average production as soon as this expansion program is completed will be in excess of 30 boats a day. Approximately 200 men are now employed and materials in ever increasing quantity are pouring into the plant from literally hundreds of suppliers. In the same mail are coming hundreds of retail inquiries and optimistic reports from dealers in every section of the country.

With the additions which are being made at the Dee-Wite plant and the improvements in production methods, Detroit will have one of the most modern and efficient boat manufacturing plants in existence.

Among the features of the new layout will be a unique stockroom where all of the hardware and fittings for the boats are stored and released as needed to the production department. This stockroom is centrally located and is reached by a fast freight elevator from the receiving room on the floor below. All parts are known by distinguishing numbers and the numbering system is sufficiently flexible to permit indefinite expansion. Each day's requirements from the various production departments are received and placed on specially designed factory trucks the day before they are needed and delivered to the proper department before the start of work the following morning. In this way delays are eliminated and sufficient material kept on hand at all points along the production line.

Much of the inspection of individual parts and considerable assembly work of the smaller assemblies are taken care of in a department of this stockroom, thus eliminating unnecessary handling and lost motion in transferring material back and forth.

The new monorail system is unique among motorboat manufacturers. It is expected that this system will increase the production capacity fully one-third, and eliminate expensive delays at various points in the production routine. As soon as the component parts of the hull, including keel, frames, battens, transom and deck assembly are completely assembled, the hull goes into the sanding rooms where it is sanded smooth by means of power driven sanding devices. The hull is then lifted clear of the floor and placed on the monorail system which carries it through the various stages of varnishing and drying. *(Continued on page 94)*

Careful design of the Fleetwing Fifty shows it to be a craft of distinguished appearance

THE ULTIMATE IN FINE CRUISERS

Newest Fleetwing Fifty Embodies So Many New and Original Features As to Place It in a Distinct Class Among Pleasure Craft

SAFETY and comfort are combined to a marked degree in the new 50-foot Fleetwing cruiser on display at the showroom of the Fleetwing Yacht and Shipbuilding Corporation, 153rd Street and the Hudson River.

"The man who buys a yacht, and his wife as well, must be assured first, that yachting involves no danger or personal risk," said Frank V. Borick, president. "A yacht is a pleasure craft, and it is a fundamental policy of the Fleetwing Corporation to build boats that give the owners complete freedom of mind so far as the hazards of boating are concerned."

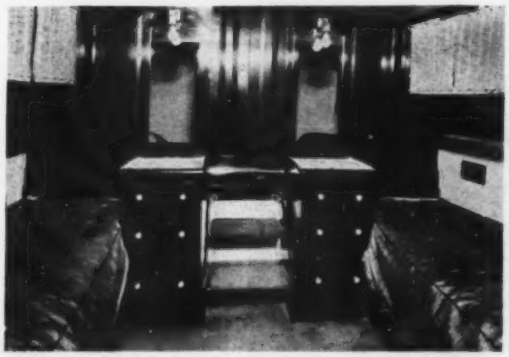
Features of the Fleetwing Fifty include five absolutely watertight compartments; a forced ventilation system to change the air throughout the boat every 3½ minutes; three separate fire prevention systems; the spacious bridge deck salon is divided by leaded glass folding doors so that the pilot, both for the sake of safety and of privacy, may be able to concentrate on his duties undisturbed by the guests. One of the innovations in the Fleetwing Fifty is a gasoline fuel supply system that automatically shuts off in case of a leak anywhere in the line between the fuel tanks and the carbureter.

Powered with two 6-cylinder, 5 by 7, 175 h.p. Fleetwing-Peerless engines, the cruiser with its round bottomed, semi-planing, spoon-shaped hull will cruise at the rate of 20 miles an hour and yet ride easily without taking spray aboard. The engines are started and controlled from the bridge with a patented dual control. Two copper tanks have a total gasoline capacity of 350 gallons, giving the Fifty a cruising range of well over 300 miles; and the tanks, for additional safety, are mounted in a hermetically sealed copper-lined compartment having an overflow line overboard.

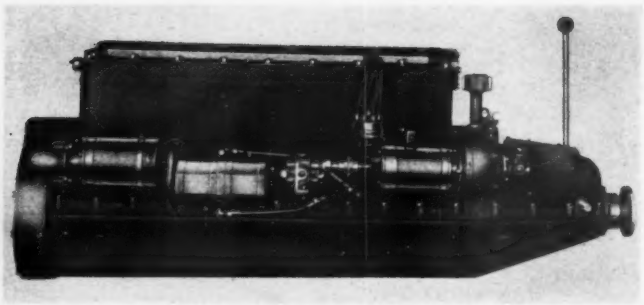
A four-cylinder Falcon marine engine operates the 1½ k.w., 32-volt, electrical power plant. Throughout, the boat has many electrical features including a Frigidaire, a Grebe radio receiver of special marine type, electric drive bilge pump, electric windlass, a new design of underlighted chart case, an underlighted Ritchie compass, a powerful searchlight,

(*Continued on page 96*)

The deckhouse which can be separated from the bridge by a clever arrangement of folding doors



Good taste in appointments feature the cabins. A forced ventilation system can change the air quickly and continuously



The standard model of Niagara straight eight—built without supercharger in two sizes, 135 and 155 h.p.

SUPERCHARGED STOCK MOTORS

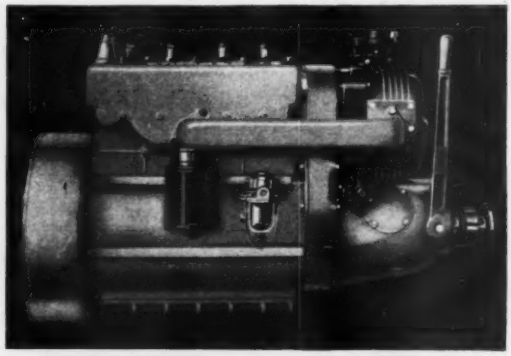
Niagara Motors Corporation Secures Increased Power by Means of Blowers and Other Refinements in Their 1930 Models

WITH a quarter of a century of successful marine engine building behind them, the Niagara Motors Corporation of Dunkirk, N. Y., has recently announced the series of 1930 models which represent the culmination of this long period of development, research and constant improvement. Possibly the most outstanding feature of the new Niagara line is the adoption of a blower or supercharger on several of their stock models, which boosts the power output of the motor approximately 35 per cent with practically no increase in weight. What slight extra weight might be required for the blower itself and the oversize construction of crankshaft, bearings, etc., to handle the increased power, has been offset by the use of a special treated aluminum alloy in many parts of the motor, which actually provides greater strength on reduced weight. In conjunction with the use of this alloy, Niagara employs a patented oxidizing process of electric baths known as Chromilite by which the metal is hardened and coated with a surface that not only adds to its appearance but also makes the aluminum absolutely impervious to the corrosive and deteriorating influences of salt air and water.

Another important improvement in these powerful motors is the silent reduction gear, which is available in ratios ranging from 1¾ to 1, to as low as 2½ to 1. These gears are built right into the aft end of the motor as a compact integral unit and are fully inclosed within the gear housing. Contrary to what might be expected, the increased depth required by the gear is almost negligible, as the oil base is lowered but ⅝ inch.

The 4-cylindered model is offered in three sizes—12-16, 40-45, and 60-70 h.p. The 60-70 is the 40-45 model equipped with supercharger which raises the horsepower to a full 70 at 4400 r.p.m. on the remarkably low weight of 400 pounds complete.

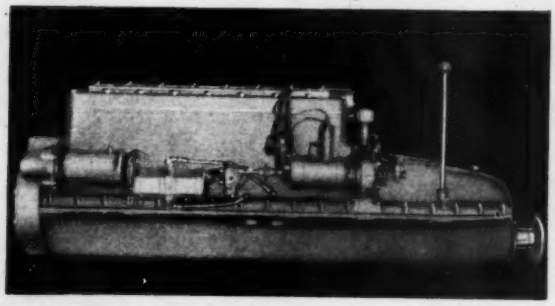
The standard straight-8 is built in two sizes—125-135 h.p. and 150-155 h.p. without supercharger. Blower - equipped, the ratings for these motors are 165-170 and 190 - 200. These models are fully equipped with many important refinements.

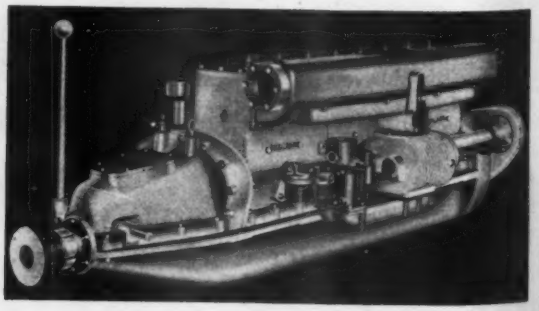


Port side of the H S S model, a four cylindered engine which produces 70 h.p. on a weight of only 358 pounds

The reduction gear on the straight eight is built in as an integral unit and is completely enclosed in the gear housing

The supercharger on the straight eight runs at crankshaft speed and increases the normal power output about 35 per cent





SIGNS OF SPRING

Busy scenes in our boat yards and yacht clubs forecast a brilliant new boating season. The incidents depicted by our artist will no doubt recall numerous similar happenings in the springtime of a boatman's life and show fitting-out details which should be avoided for best results

SIMPLE SIMON—AN EASY ONE

As the Name Suggests, a Design of Great Simplicity for the Novice Who Has the Urge To Build and Sail His Own Craft

Designed Especially for MoToR BoatinG

By WILLIAM ATKIN

SEVERAL years ago we, my two boys and I, undertook the building of a small boat. I being the advisory end of the work and the two boys, with the help of several other folks, the labor end of the work. We did not draw any plans and there was not much in the way of accuracy built into the craft.

She was duly named It.

Now It was 13 feet long, over all; 10 feet on the water line, 3 feet 6 inches in breadth; and had a draft of about 5 inches. She was, or rather is, a combination rowing, outboard motor and sailing boat. She has white pine sides, cedar bottom, and fir decks. Her mast is a bamboo pole. And the whole outfit as near simplicity as it is possible to build a boat, and still be able to call it a boat. It is a punt, and of flat bottom model, not blessed with much freeboard and lacking considerably in style. But she sailed all right. She afforded a lot of fun for the boys, too. And they learned to sail in her.

About the time It was finished and she lay in our yard, George N. Kempf of Madison, Wis., blew in. I presume that is the descriptive word that best describes his visit to The Mizzen Top. George, he fell in love with It.

Listen to what he says about her in a recent letter to the Editor of MoToR BoatinG:

"Madison, Wisconsin.

"Motor Boatink:

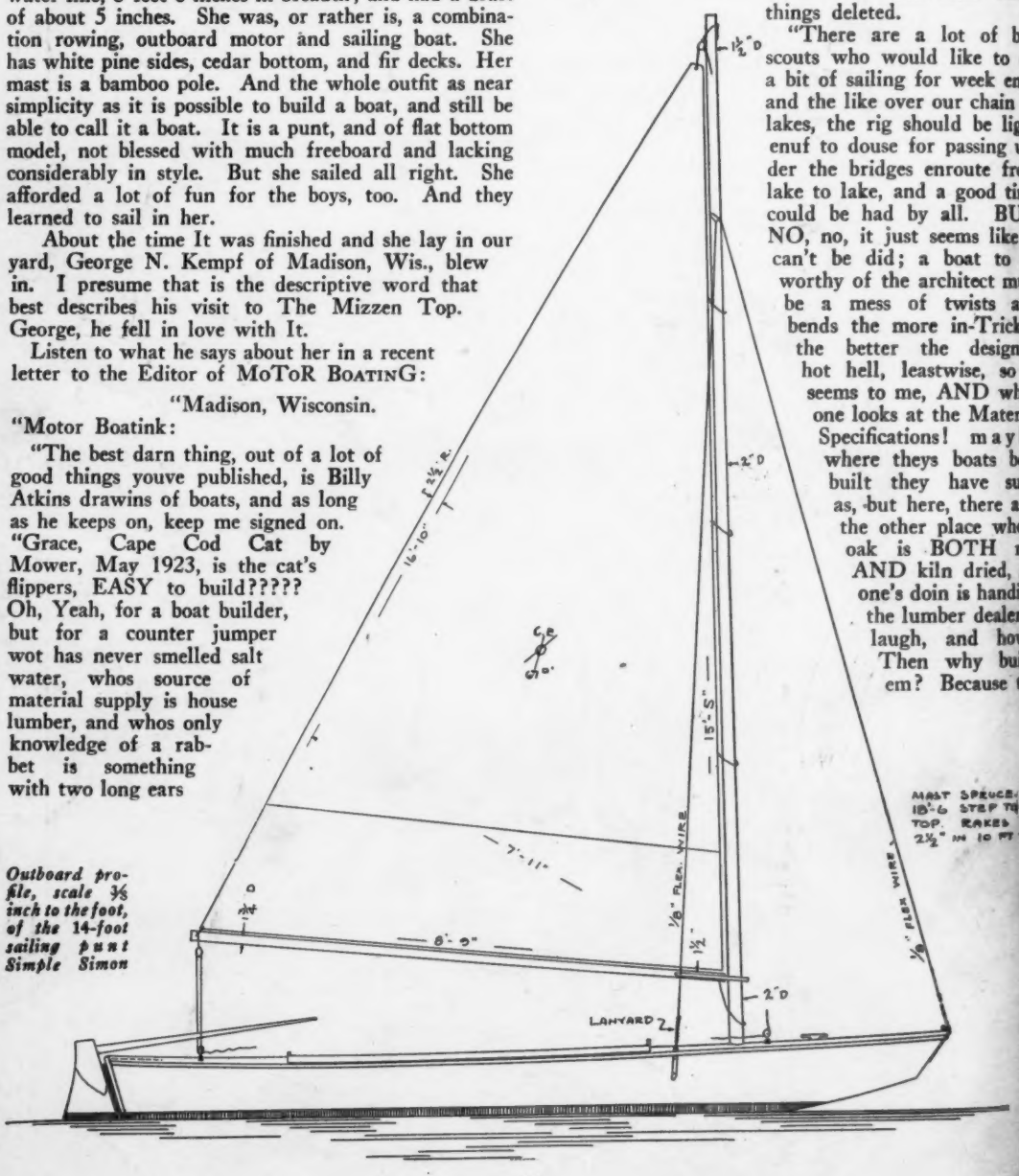
"The best darn thing, out of a lot of good things youve published, is Billy Atkins drawins of boats, and as long as he keeps on, keep me signed on.

"Grace, Cape Cod Cat by Mower, May 1923, is the cat's flippers, EASY to build????? Oh, Yeah, for a boat builder, but for a counter jumper wot has never smelled salt water, whos source of material supply is house lumber, and whos only knowledge of a rabbet is something with two long ears and a powder puff tail. Oh, yeah, he could NOT complete Grace, let alone get started. Believe it or not.

"But the IDEA of Grace is K. O. for a flock of inland lakes like which we have here, and why not use the idea, but revamp it so as to make it possible for a lot of sod busters and hay shakers to break into the game.

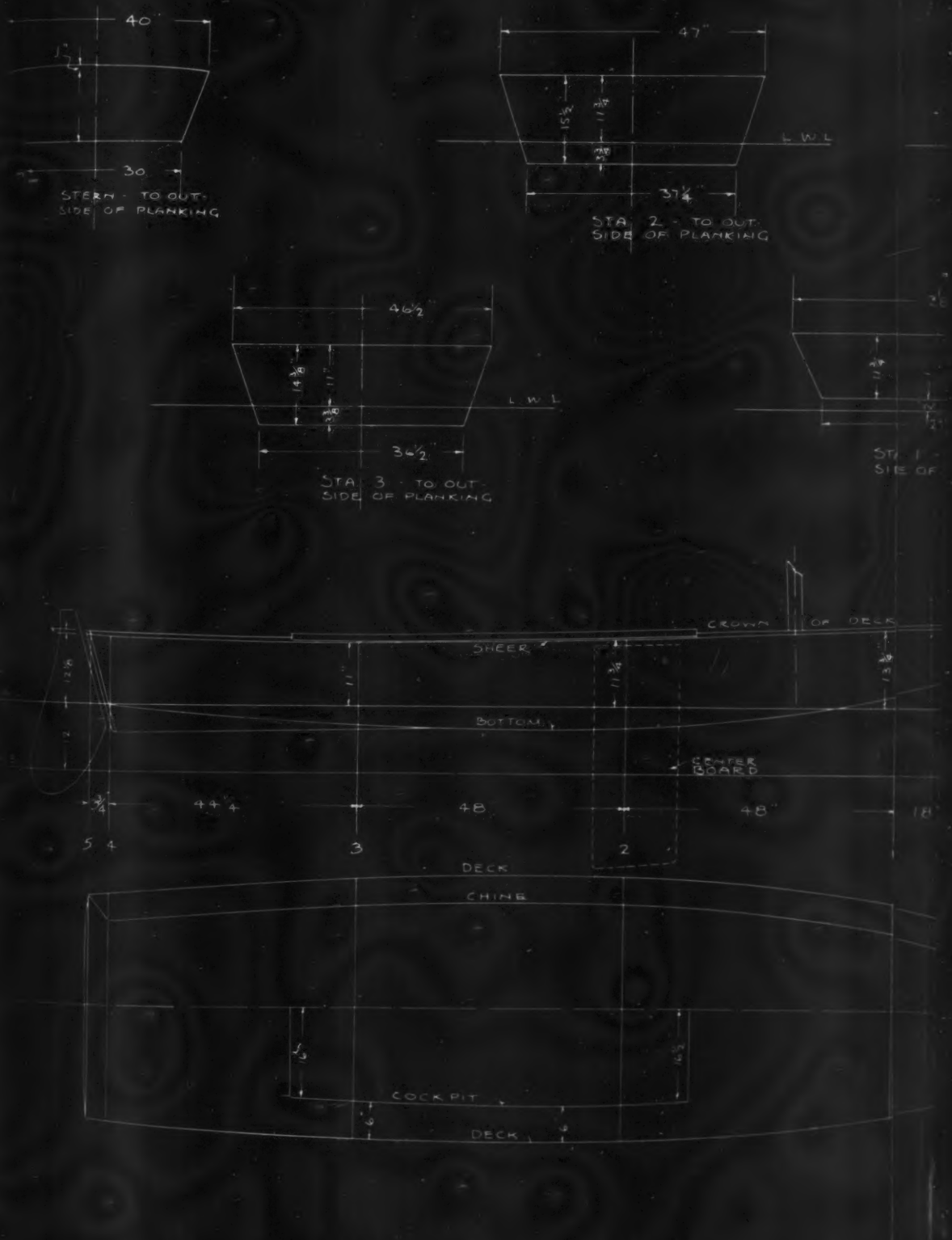
" * * * and some other things deleted.

"There are a lot of boy scouts who would like to do a bit of sailing for week ends and the like over our chain of lakes, the rig should be light enuf to douse for passing under the bridges enroute from lake to lake, and a good time could be had by all. BUT NO, no, it just seems like it can't be did; a boat to be worthy of the architect must be a mess of twists and bends the more in-Trick-it the better the designer, hot hell, leastwise, so it seems to me, AND when one looks at the Material Specifications! maybe where theys boats bein built they have such as, but here, there and the other place where oak is BOTH red AND kiln dried, all one's doin is handing the lumber dealer a laugh, and how! Then why build em? Because the



Outboard profile, scale ⅜ inch to the foot, of the 14-foot sailing punt Simple Simon

MoToR BoatinG's Build A Boat Series



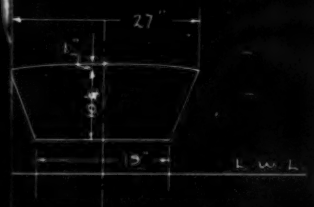
Designed Especially for

MOTOR BOATING

By WILLIAM ATKIN

"SIMP
A
SAI

Sca



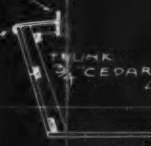
BOW - TO OUT SIDE OF PLANKING

TO OUT PLANKING

STERN - 3/8" OAK IN SINGLE WIDTH SCREW 5/8 x 1 1/2" CLEATS, OR DOUBLINGS AROUND SIDES AND BOTTOM. THESE SHOULD BE MADE FROM OAK

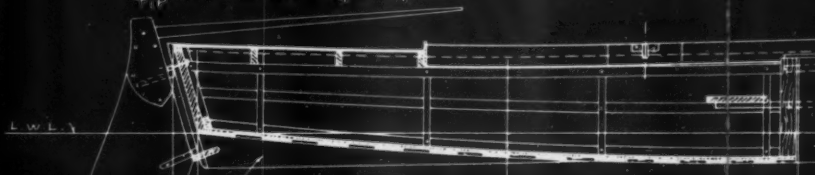
COAMING 1/2" x 3 1/2" CEDAR

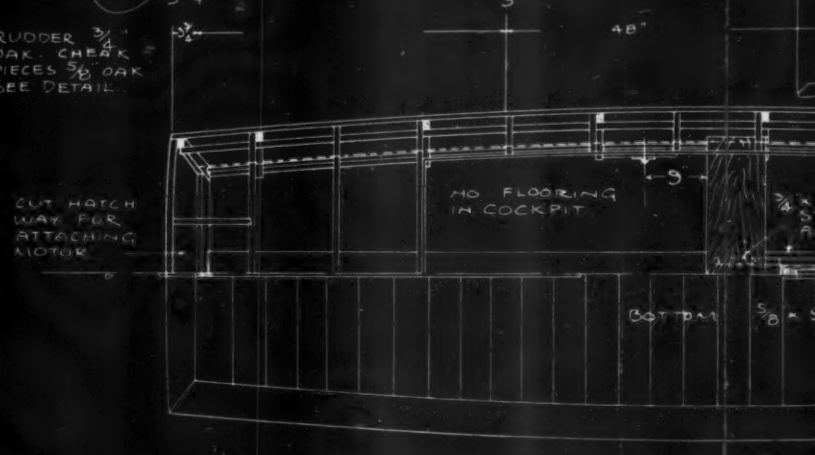
7/8" HALF ROUND MOULDING OAK



SIDE PLAN
FIR - SIN
IF TWO W
BEHIND
FRAMES -
3/4 x 2 AT

TILLER OAK 3/4" x 1 1/2" AT RUDDER HEAD 3/4 x 3/4" AT TIP





RUDDER 3/4" OAK CHEEK PIECES 5/8" OAK SEE DETAIL

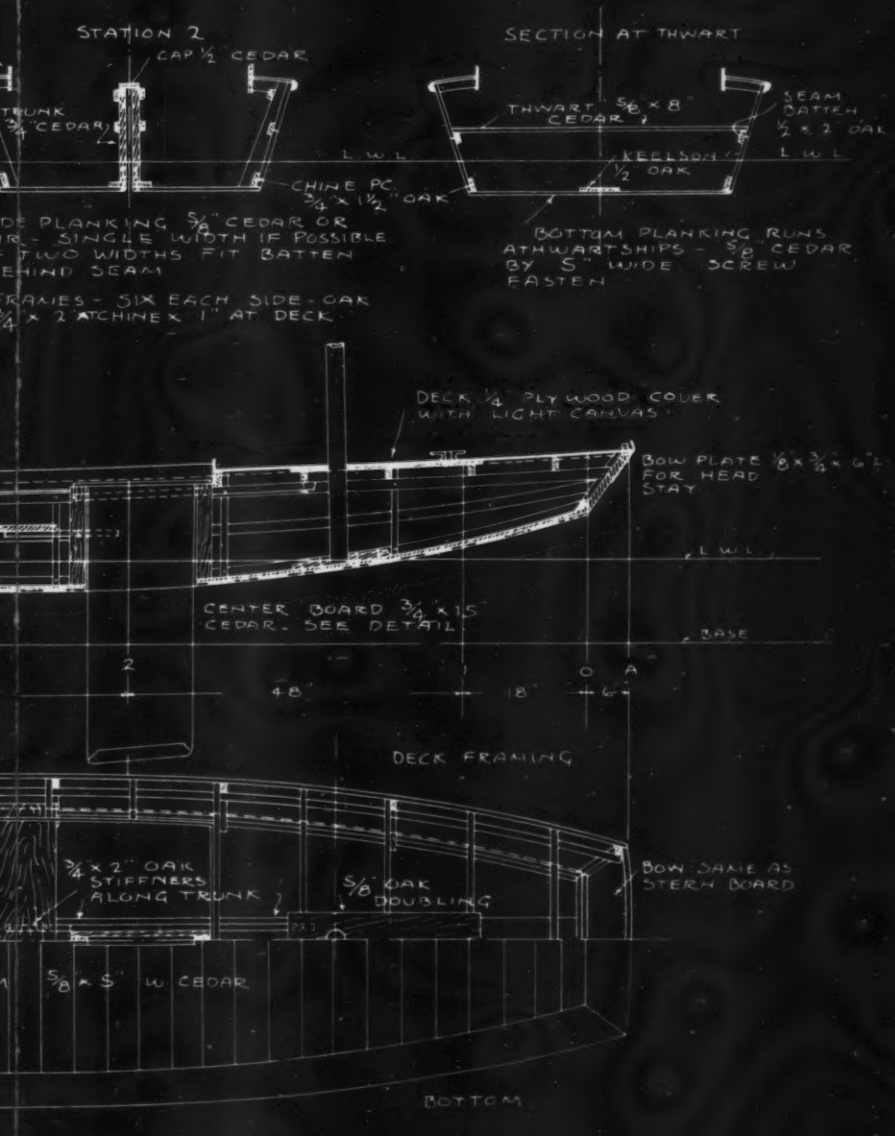
CUT HATCH WAY FOR ATTACHING MOTOR

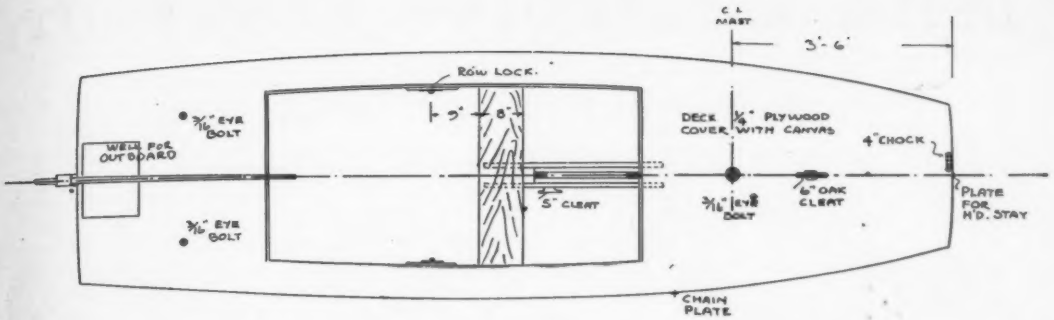
MPLE SIMON"

A 14 Foot

AILING PUNT

Scale ½ Inch = 1 Foot


STATION 2
CAP ½ CEDAR
TRUNK
¾" CEDAR
L W L
CHINE PC.
¾" x 1½" OAK
DE PLANKING ⅝" CEDAR OR
IR - SINGLE WIDTH IF POSSIBLE
TWO WIDTHS FIT BATTEN
EHIND SEAM
RAMES - SIX EACH SIDE - OAK
¾ x 2 AT CHINE x 1" AT DECK
SECTION AT THWART
THWART ⅝ x 8" CEDAR
SEAM BATTEN ½ x 2 OAK
KEELSON ½" OAK
L W L
BOTTOM PLANKING RUNS ATHWARTSHIPS - ⅝ CEDAR BY 5" WIDE SCREW FASTEN
DECK ¼ PLYWOOD COVER WITH LIGHT CANVAS
BOW PLATE ⅛ x ¾ x 6" FOR HEAD STAY
L W L
CENTER BOARD ¾ x 15 CEDAR. SEE DETAIL
BASE
2
48"
18"
6"
O A
DECK FRAMING
¾ x 2" OAK STIFFNERS ALONG TRUNK
⅝" OAK DOUBLING
BOW SAME AS STERN BOARD
⅝ x 5" W CEDAR
BOTTOM



The deck and arrangement plan for Simple Simon, scale 3/8 inch to the foot

exchequer says we can't buy em ready made, and we could build em out of available materials, providing we had plans that are within reason.

"I cannot see any reason why a line of craft could not be designed which would be safe and wholesome, and at the same time brought within the province of the novice, one that really could be built, and not require a year or two in the building, and of such materials that are readily available everywhere.

"Who gives the most pleasure (and pain), Henry Ford or Rolls Royce? there has been (and no doubt always will be) an overabundance of designs and how to builds published that are up over and beyond the well known common people, why not come down to earth, bring your designs down to the point where they can and WILL be built.

" • • • and some other things deleted.

"Atkin's kids (under Atkin's supervision) built a little sailing scow or scooter, in his back yard, it really was a thing of beauty, in a way. Atkins has that gift of making almost anything look well and Blime if she wasn't a little hooker, which any boy could make anywhere, surely couldn't have cost much, and no doubt would be built by a lot off folks. I pulled a bull here, I ment of, not off, folks; personally I am off and am willing to admit it. Yes that scooter would be built if folks could see the plans, BUT TRY AND GET EM.

"Seems like Atkins thinks his kids are the only kids who would take to a thing like that, says which I think he is just kidding himself, why dont he give the rest of the kids in the U. S. A. a Break, they can't all have dads who are N. A.'s.

"Well, I guess I had better lay offen Atkin or he will be putting a few dents in my conk with a belaying pin, for which I wouldnt blame him at all, but thought that as long as he was doin his stuff for MoToR BoatinG he might as well be doin something.

" • • • and some other things deleted.

"There are some of us and we are legion who just WILL putter and build our own, and we each of us (if we are smart) build the best kind our knowledge of the boatbuilding art permits, but I think and feel that we uns would all build bigger and better and more were it possible to procure the foundation.

" • • • and some other things deleted.

"Well, I guess I have said more than enuf for this time so wil sign off.

"Yours for more Atkins designs,

Geo. N. Kempf."

Now that is a swell letter, isn't it? And our response to it is this Simple Simon boat. We learned a lot from the boat It. Late in the fall in which she was built my boys sold her to R. J. Murphy, Greenwich, Conn., and on Election day he sailed and rowed her home, arriving there the following morning at about 1 A. M. He said the sound was smooth, but he had trouble dodging steamers. With the coming of Mr. Kempf's letter to put us in mind of the thing again the editors are arranging to publish several more simple kind of boats and these will appear in MoToR BoatinG from time to time.

Simple Simon is like It but bigger. Her principal dimensions are: length over all, 14 feet 0 inches by 4 feet beam by 4 inches draft. One feature she has which It lacks, is arrangements for attaching and carrying an outboard motor. With an outboard she is a handy little thing and ideal for children to learn to sail in and to learn the ways of the water. She will sail and can be rowed. Furthermore will not sink if capsized or filled with water. Now, don't get a big powerful outboard motor, the lightest and the least powerful will be best. She will have ample speed and cannot be driven fast anyway.

It would be well to have a cover for the hatch way at the stern so as to keep water from slopping in when under sail. This can be made from canvas or from plywood; canvas is best, I think.

This time I am giving the dimensions for the moulds at the various stations right on the sections. In a larger boat this practice is very unsatisfactory on account of the complication of lines and it is simpler for the builder to use a table of offsets.

Don't try making one or two forms and trust to luck that the boat will turn out all right. We tried this with It and it took just about three times as long to straighten the thing up as we saved by not making the forms. There are no short cuts in boatbuilding.

I have kept the construction as simple as possible, bearing in mind that this is a boat and not a crate. It is all very well to think you can slap a few boards together and have a boat. You may have something that will float, but you can hardly call it boat. And when you get through you will not have anything. So what is the use of cutting every corner and saving every nail possible, and every minute? Waste of time, that's all.

You will notice that there is good room in the cockpit of Simple Simon, in fact, this is 6 feet long and wide enough for two boys to sleep in. The seat can be made to be removable and then there is plenty of room for legs. Have an awning made to spread over the cockpit, using the boom as a ridge pole. A few screw eyes under the sheer moulding will be the best means for keeping this on. Make a crotch to hold the aft end of the boom off the deck, this should be at least 2 feet high.

The mast and boom will be made from spruce or some other light and tough wood. I have kept the

(Continued on page 96)

LEILA A SEAGOING RUNABOUT

Interesting Structural Details for the Unique 18-Footer Designed for Use in Rough Water and Heavy Weather

Designed Especially for MoToR BoatinG

By WILLIAM ATKIN

PART II

IT will be remembered that Leila is an 18 footer having a beam of 5 feet 6 inches and a draft of 1 foot 3½ inches and that she is of wholesome type, suitable for use when it is rough. The usual practice in boats of the runabout type is to hang the propeller shaft on a strut, leaving the propeller and rudder entirely unprotected in case of striking submerged constructions. Figure 2 will give you an excellent idea of the construction of the keel, deadwood, stem and stern, and it as well shows just how these various members are to be set up on the building floor.

All work having to do with the setting up of the keel, making the forms and laying down the lines is most important. You must get off to a good start, otherwise the boat will not be fair and true. I think it is safe to say that all the lopsided and cockeyed boats you see have been started in a hurry, and I am sorry to say that there are a lot of these. It's too bad, too. What's the use of building from plans unless care is taken in starting the job? The answer is, none.

We all make mistakes, in fact all of our lives we are working to undo errors of the past. I find that in several instances I have, in tracing my original figures from the tables of offsets, gotten out of tune, so to speak. Now here is precisely the reason for laying down plans to full size before cutting up lumber. Remember, and this is the advice I got from the first concern for whom I worked, "paper is cheap!"

There is an excellent boat builder at Huntington, Chute & Bixby's. This concern has built several boats from my plans—eleven, if I remember correctly. They have built from Mr. Alden's plans, from Mr. Mower's plans, from Albert Strange's plans and from their own plans. In every case the lines are very carefully drawn full size on the floor; wooden patterns are made for every part of the keel, stem, deadwood, forms, etc. Always there is a dimension that somewhere does not gee. Why the big reason for laying the lines down is to make doubly sure that the whole thing is fair and true. You must remember that an error of 1/32 inch on plans drawn to a scale of ½ inch to the foot is multiplied by 24 when the boat is drawn full size, which equals 24/32 inch or ⅜ of an inch. It is always perfectly evident to an experienced builder when these errors turn up that this sort of thing is not vital and is easily checked by comparison with either the diagonals, the water lines or the body plan as the case may be. Building a boat requires ingenuity as well as tools.

Now to get back to specifications on Leila.

The keel will be made from 3½ inch white oak and should be in a single length. It may be difficult to get good white oak in some localities, and unless the oak is good it should not be used for boat building. In this case substitute yellow pine; the latter is one of the best woods for boats. It is lighter than oak, nearly as strong, holds fastenings well and will not rot in water, and is not subject to dry rot when out.

The plans call for white oak deadwood, shaft log and horn timber, however, as in the case of the keel, yellow pine can be used for these members. It is good practice to use 5/16 inch diameter galvanized iron drift bolts for fastening the deadwood and keel. Drift bolts are simply lengths of rod driven into auger holes which are slightly under the diameter of the rod. They hold best if the holes are bored at varying angles; in other words, toed.

You will notice that the keel is straight along its bottom and turns up abruptly a foot forward of station 5. From this point, and aft, the keel should be tapered so as to permit the water to flow in an unbroken stream into the propeller. I have found that this arrangement affords excellent protection to both the propeller and rudder without the drag of the more usual arrangement of shoe and deep rudder.

The stem will be made from a hackmatack knee and will be fastened to the forward end of the keel with three 5/16 inch diameter galvanized through bolts, the heads to be countersunk and the nuts inside. It will be sided 3 inches. At the deck the stem will be moulded 4 inches, near the water line 5 inches, and

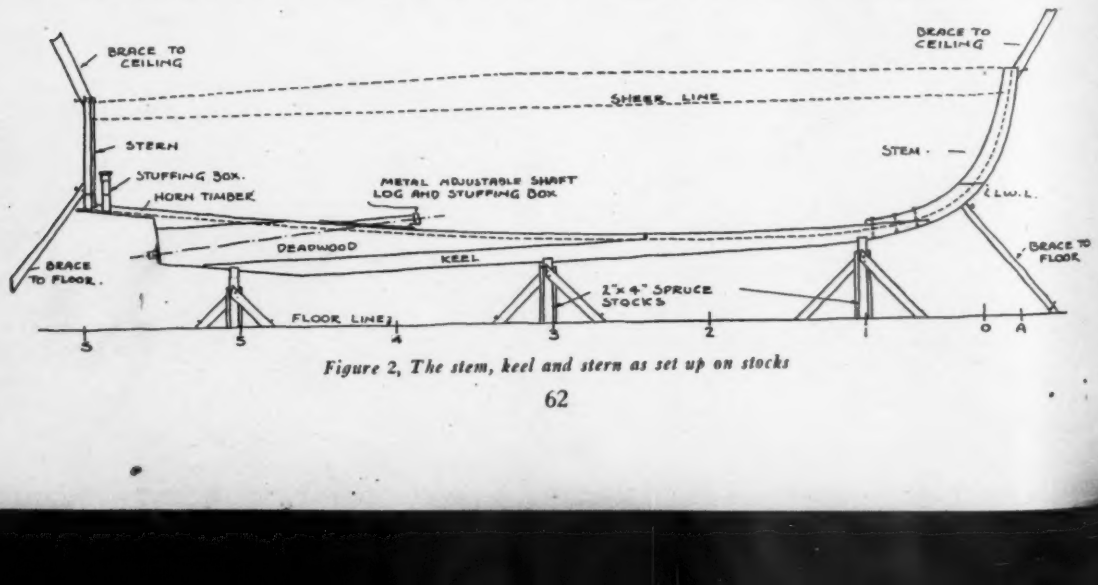


Figure 2, The stem, keel and stern as set up on stocks

where it joins the keel 5 inches. The scarph or joint at the keel will be about 18 inches long.

The stern transom will be made from ⅝ inch white cedar screwed to cleatings as shown, the latter being made from ⅞ by 2 inch oak. There will be three widths of cedar across the stern, the seams of these to be backed by ½ by 2 inch oak battens.

There will not be any forms in this boat. Rather than these, the frames will be used for forming the sections of the hull. These will be set on 36 inch centers with the exception of station O; this being but 28 inches forward of 1, and 8 inches abaft station A. The frames will be made from oak. Those above the chine being ⅞ by 2 inch; those on the bottom being ⅞ by 2½ inches. The forming and fitting of the frames must be a neat job, no guess work or rotten fits. There only will be trouble and grief later if this work is done in a sloppy manner. The bottom and side frames are joined at the corner of the chine with ⅞ inch oak knees, these to be screw fastened. At the keel floor timbers secure the heels of the frames.

The floor timbers will be made from ⅞ inch white oak and to the heights indicated on the construction profile. Like the knees at the chine, the floor timbers will be fastened with screws; either brass, if the pocketbook will stand these, or of galvanized iron: galvanized fastenings make a good job, and no mistake about it.

It will be necessary to run a temporary member across the heads of the frames and this should be placed so that its upper edge is below the under side of the clamp along the sheer.

The frames will be fastened to the keel and dead-

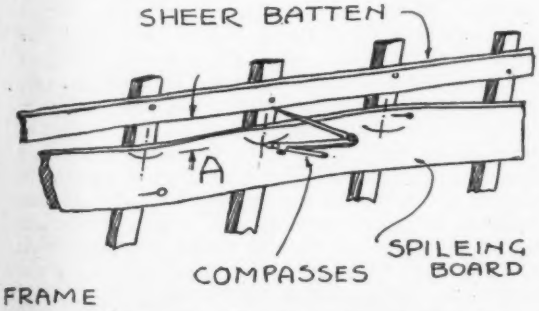


Figure 6, A larger detail of the spiling board which determines the edge of a plank

wood with galvanized iron drift bolts placing two fastenings into every floor timber. Under the engine, because of the cutting out required for the clearance of the crank case, I should use screws. There are, however, only three of these.

The engine beds set on the floor timbers and need not extend for a greater length than the base of the engine. These will be through bolted to the floor timbers. In connection with this you will notice there is an extra floor timber between stations 3 and 4.

The planking will be ⅝ inch white cedar, four strakes on each side above the chine and four strakes each side on the bottom. There will, of course, be battens behind the seams, these always being used in construction of this type where the frames are widely spaced. The battens will be made from ⅜ by 2½ inch white oak. The side planking must be laid so that the seams run in a fair sweep from bow to stern, the frames must be evenly divided from the chine to the sheer line and the planks shaped to fill the space. The center of the battens will, of course, coincide with these divisions. Figure 6 shows the method of arriving at the correct shape of the planks. A piece of ¼ inch bass wood or similar is roughly cut and tacked to the frames, being careful not to spring this edgeways. The sheer line will be indicated on the heads of the frames and of course the sheer batten will extend in a fair line. Now taking a pair of compasses set at a radius of about four inches describe arcs at intervals of 6

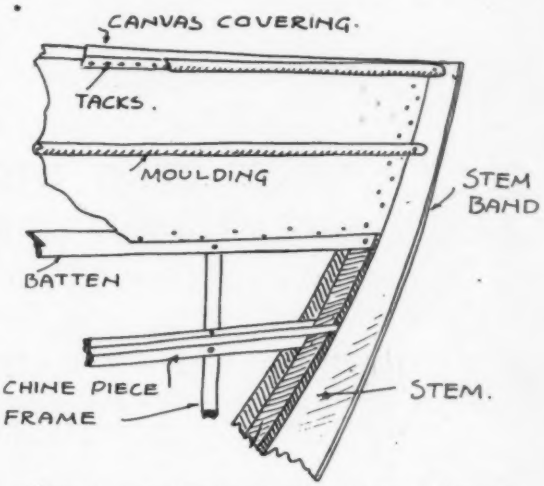


Figure 4, How plank ends, ends of battens, chine, etc. fasten to the stem

inches, using the sheer line at these intervals as centers. Mark on the spiling board also the location of the frames.

It will be seen that by removing the spiling board and laying it along the edge of an uncut plank that by simply reversing the process, using two points on the arcs for centers that the center of the arc will be determined, and this will be the line of the sheer. These points will be on the uncut plank. Run a fair batten through these, and this will be the line to which the top edge of the plank must be cut.

The width of the plank will be found by simply transfering the spacing of the middle of the batten to the sheer on to the plank, then fairing up with a batten.

The chine logs will be made from 2½ by 3 inch yellow pine and must be in a single length. These will have to be steamed at the forward ends, otherwise they will be very difficult to get into place. There may be other steaming necessary, and so I have shown an easy way to make a steam box. See Figure 5. This arrangement consists of a length of stove or leader pipe with tight soldered seams, or a piece of iron pipe. Make the lower end water tight. Lean against a prop of some kind or other. And use a big plumber's fur-

(Continued on page 76)

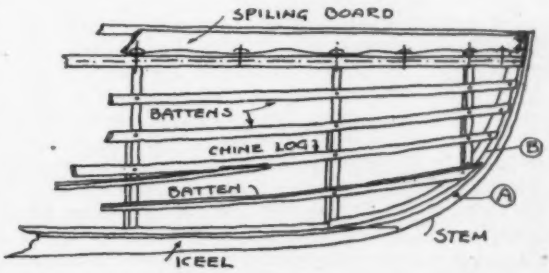


Figure 1, The spiling board and arrangement of stem, keel, frames and battens

SMALL MOTOR BOATS

Their Care, Construction and Equipment

A MONTHLY PRIZE CONTEST CONDUCTED BY MOTOR BOATMEN

Questions Submitted for the July Contest

1. Of what value is the heat indicator to the marine motor and how should it be attached to the circulating system in order to obtain true readings?
(*Submitted by E. N. A., Oaklyn, N. J.*)

2. How would you lay out a club's new winter storage yard so as to provide the easiest and quickest moving of yachts at hauling time?
(*Submitted by F. F. W., Rochester, N. Y.*)

VENTILATING THE SMALL CRUISER

Simple Mechanical and Natural Means for Changing Air in the Confined Spaces of a Small Boat Which Will Increase the Comfort

Answers to the Following Question, Published in February MoToR BoatinG

What is the best method of properly ventilating the toilet, galley and engine compartment on the smaller cruisers, bearing in mind that such a system must be usable in bad weather, nor too expensive, and installed so as to function more or less automatically?

SIMPLE MECHANICAL VENTILATION

(The Prize-Winning Answer)

THE average modern small cruiser is so designed and arranged that complete ventilation of all compartments may be accomplished without excessive expense, little hard work and may be operated and maintained with practically no cost or trouble.

In these days of scientific ventilation and efficient machines we of course want dependable mechanical air handling as no ventilation problem can be truly correct unless so handled.

Assuming that each cruiser has electric current available we will consider the small motor driven housed centrifugal fan as the prime mover. Many sizes of these compact direct driven fans are available in all voltage and may be found advertised in MoToR BoatinG each month.

The size of fan necessary is in direct proportion to the size of the craft and in no case will require current in excess of that available from regular starting and lighting system already part of the boat's equipment.

C. F. M. means cubic feet per minute and is the term used in connection with fan capacity. All fans are rated in C. F. M. so with the amount of air needed correctly figured it becomes an easy matter to select the proper size unit.

For ventilating the engine compartment an air change twelve times an hour is ample and considerably in excess of that absolutely needed. The galley air change should be about twenty times per hour as this amount will help reduce the temperature in summer. The toilet will be well ventilated if six air changes an hour are figured. As an example we will assume that the entire engine compartment measures 250 cubic feet; the galley 120 cubic feet and the toilet room 120 cubic feet. These three figures multiplied by the air changes per hour given add up to 6,120 cubic feet of air per hour. Dividing by 60 gives us little over 100 cubic feet of air per minute, in other words, a fan unit selected that is rated 100 C. F. M. will give proper ventilation.

Locate the fan unit at a point as nearly central as possible in order that the ducts leading to various compartments may be kept short. It is well to also keep the unit above the water line. Ducts may be made of metal, plywood or thin lumber well painted and need not be of any particular shape. The most important point is to keep the sizes correct for the amount of work to be done. If the inlet to the fan measures 5 inches in diameter its inlet area is approximately 16 square inches, therefore, the ducts should be constructed so that their total area is about 30 square inches, or about double, that of the fan inlet, by so doing the air travel or velocity of the air is lowered within the ducts reducing the amount of friction and allowing the fan to handle nearer the C. F. M. of its rating. Proportion each duct to handle its share of the total. In using one main duct with branches off to each compartment keep the main line full size and reduce the branches only.

If ducts are exposed they may be constructed very flat, or even triangular in a corner, thereby allowing the bulkhead upon which they are mounted to form one side of the duct. Carry the galley duct nearly to the carlins and locate outlets on the face of the duct near the top. Outlets shall equal the cross section of the duct in area and may be slots, holes or even a grill design. Cast shutters may be purchased also for the purpose. The toilet room duct should terminate at floor level and may be screened or even left open if located aft of the toilet itself. The duct leading to the engine compartment should always be carried to the lowest point in the bilge of that compartment. Place one outlet directly in the end of the duct and one on either side near the end, being careful to make each outlet one-third the area of the total duct area. Distribution is the all important factor in removing the dangerous gases and the owner or builder may go as far as he likes in the design of such ducts.

So much for the suction or the inlet side. Carry a duct from the fan outlet to deck ventilators placed as far aft as possible. This duct should be approximately twice the area of the fan outlet. Use the mushroom deck ventilator if possible so that stern winds or cross winds will not blow against the ventilator outlets. Funnels look pretty but to be really correct must be of the swivel type and swung around constantly to keep the mouth away from the wind.

Such a system as outlined above may be very successfully operated semi-automatically. A regular switch button may be located at any convenient point and in series with the switch a regular cut out may be placed. This cut out is similar in design and the same in operation as the one in the generator line. Upon entering the boat the switch is turned on and the system starts operating. After three or four minutes sufficient fresh air has replaced the foul and fume laden air and it is safe to start the engine. As soon as the engine reaches a certain speed the cut out will close and shut off the fan. Upon stopping the boat the fan system goes back to work automatically. A second switch may be installed to by-pass the cut out so that the system will operate while under way.

The days and nights of dead calm at anchor or sultry hot weather will be the times when the mechanical ventilation will prove its worth as regardless of wind or weather the fan system handles the same quantity of air. Other systems which depend on funnels alone are very effective at speed but are of little value when most needed.

E. N. A.,
Camden, N. J.

VENTILATION FOR SMALL CRUISERS

ON the average small cruiser the ventilation problem is usually neglected, yet this is a matter of much importance for the comfort of the occupants. The skylight and portholes may suffice for the living quarters but special provision must be made for the galley, toilet, and engine compartments to prevent interference with the ventilation of the living quarters. The galley stoves used on some boats emit heat and fumes that almost drive one from the cabin and this certainly is unpleasant in bad weather when the cabin must be closed. The compartments mentioned above will require different treatments and the following will enable the average boatman to improve conditions on his boat.

In the toilet compartment there is no air current induced by heat such as from the stove or engine so a forced draft system is used that is entirely automatic and simple. At a suitable point on deck install a scoop or funnel pointing forward. It is hardly necessary to make this movable to face the wind. It should be about 3 inches diameter at the deck. Inside the compartment connect this opening with a steel pipe running down to about 4 inches from the floor. Directly under this pipe provide a hole in the floor to let any solid water pass into the bilge which might come down the pipe. You can put a grid over this hole. The pipe should have a damper in it of the butterfly type for regulation in unusual weather. If the pipe is of thin sheet metal it will dent and present unsightly appearance unless it is covered with a wood boxing.

Put another hole through the deck into this compartment and mount on the deck a standard ventilation head. These fittings will allow free escape of air but will prevent water from coming in. A home-made fitting of this type can be made from a floor flange, a nipple about 6 inches high and a return bend, although the standard fitting is far more sightly. The diameter should be about 25 per cent more than the intake pipe. This arrangement will provide fresh air in this compartment at all times and is practically automatic and simple to install.

The galley compartment does have the advantage of heat to induce the air to move and this is used to provide a simple ventilating arrangement. Directly over the stove fashion a hood from sheet metal and suspend it from the ceiling. This hood is a shallow frustrum of a pyramid with the edges turned down about 2 inches all around. At the center it connects with a ventilator head fitted on the deck overhead. This head is the same type as used in the toilet compartment and should be provided with a butterfly or other type of damper.

Stoves consume the oxygen in this compartment, so for comfort, some inlet of fresh air to the burners should be provided. This can be a horizontal pipe running from the cockpit or other sheltered place to a point just beneath or to the back or front of the burners. This should be at least a 2-inch pipe, preferably more, and fitted with a damper for regulation. This arrangement of outlet and intake will give perfect ventilation in this compartment.

To ventilate the engine compartment, the suction of the engine can be utilized to advantage. Of course, the carbureter inlet in some engines is not suitable for attaching a pipe to it, and in such cases put a pipe as near to the point of air intake as possible. This pipe should be about 3 or 4 times the diameter of the intake and should run to within 3 inches of the top of the compartment. Directly over this pipe place a metal plate in case of a *(Continued on page 100)*

RULES FOR THE PRIZE CONTEST

READERS are urged to consider the above questions for the July issue, and send answers to them to the Editor, MoToR BoatinG, 57th Street at Eighth Avenue, New York, N. Y. Answers should be (a) in our hands on or before May 25, (b) about 500 words long, (c) written on one side of the paper only, (d) accompanied by the senders' names and addresses.

The names will be withheld and initials used.

QUESTIONS for the next contest must reach us on or before May 15. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of MoToR BoatinG of which the advertised price does not exceed $25 or a credit of $25 on any article which sells for more than that amount. There are two prizes—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of MoToR BoatinG of which the advertised price does not exceed $5, or a credit of $5 on any article which sells for more than that amount.

All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.

HOW TO TREAT ROPE ENDS

Convenient and Serviceable Ways to Keep Ends of Lines In Neat Order With Suggestions for Other Lines Used On Small Craft

Answers to the Following Question, Published in March MoToR BoatinG

Describe and illustrate the most serviceable and convenient fittings or other treatment for the ends of all ropes, cables and chains used on the average cruiser for the anchor, mooring, mast guys, flags, tender towing, etc.

NEATNESS FOR BOAT LINES

The Prize-Winning Answer

ROPES are outstanding essentials aboard a boat. Their efficiency is enhanced by the manner in which they are kept in shape for the situations which they are expected to cover.

How they are fastened to the boat and to the various paraphernalia of the boat is a matter of importance, since a slovenly fastening may stand between the safety and the destruction of a boat.

In Fig. 1 is shown an excellent way to connect the anchor cable to the anchor. Where chain is used, the shackle is the ideal connector between the chain and the anchor, but with rope nothing supersedes the thimble with eye splice and seizing.

The seizing should be carried for a distance of approximately two feet beyond the neck of the thimble in order to care for chafing which is more or less apt to happen at this point.

Bending a cable to an anchor with two half hitches with the end of the cable lashed to the standing part may be all right for temporary use, but to be used generally it is an out-and-out nuisance. It picks up more than its share of mud as it leaves the bottom, it flaps against the bow of the boat with all its possibilities of besmirching it; it catches in the chock and necessitates a long arm lift to swing the anchor aboard. Furthermore, if the anchor and cable is housed on the deck, such a connection is an eyesore.

Rope ends, generally, are subject to unraveling. This makes them messy to handle when they are wet, besides it shortens the usable length of the rope. A wall knot and crown as shown in Fig. 2 will solve the problem. The knot is shown in (a) and the two steps shown in making the crown shown in (b) and (c). By splicing the ends of the crown strands into the standing part of the rope, a still further serviceable rope's end can be made.

In cases where the wall knot would be objectionable —where the rope must pass through a block, for instance—seizing is an old standby. (Fig. 3.) Light marline or cord is wound as shown, beginning at (a) laying the cord on the strands up to the end of the rope, then winding in the direction of (a) until the standing part of (a) and (b) are just long enough to tie together. Needless to add the cord should be laid close, the spacing in the illustration shows the idea rather than the actual spacing.

The painter for the tender should have an eye splice at its outboard end big enough to be dropped over float cleats, pier posts, and of course, the stern towing cleat.

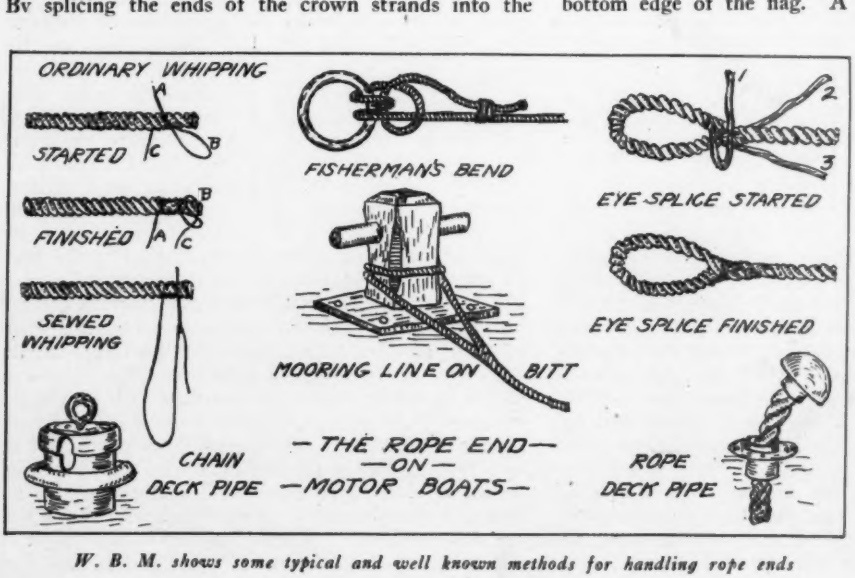
Tenders tow best at a certain point—on the second wave following the boat—at which point the tender planes and registers the least pull on the painter.

While a spring balance will register the point of least pull, yet if the tender is brought into approximately the position outlined in Fig. 4, the point of least pull will be evident even to the feel.

The eye splice should be at a certain distance from the nose of the tender so that when the end of the painter is thrown over the stern cleat, the tender will be in the correct position for towing.

By incorporating a cut splice at about the point (a) Fig. 4, the tender can be quickly hauled close and fastened when backing or filling or when coming alongside a float. Hooked up short in this fashion there is no danger of the painter fouling the propeller. The mast head flag can be handled readily by the method outlined in Fig. 6. A piece of leather is fastened in a slot cut in the flag stick a short distance below the bottom edge of the flag. A No. 2 grommet in the leather will serve to engage a snap hook in the halliard. The bottom end of the flag stick is treated in a similar manner.

Mast guys should be made of galvanized iron wire. While this wire can be spliced at the points where it engages the mast collar, the deck, or the deck turn buckles, yet it will be a difficult proposition for the amateur. An excellent job can be done by using a false splice at these points. This is done by unlaying the strands of the rope for a certain distance and placing them parallel to the length

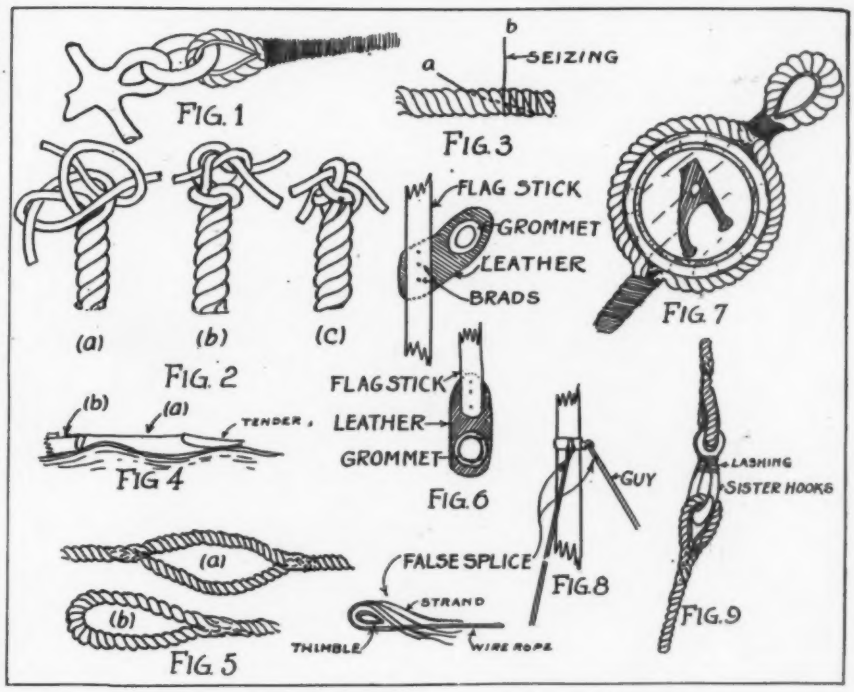


W. B. M. shows some typical and well known methods for handling rope ends

of the rope, after which they are seized in the ordinary way. The finished job cannot be told from the actual splice and since the strain is very slight, the result is satisfactory.

While pick-up buoys are a standard practice in some localities, yet the keg and mooring cable assembled as in Fig. 7 has many advantages. It is the pick-up buoy's superior in extremely crowded anchorages. It allows the bow mooring line to be dry and eliminates the swabbing which pick-up buoy lines often occasion.

An anchor cable should contain at least 150 feet. When the occasion demands that this be lengthened, nothing is better than the use of sister hooks as shown in Fig. 9. Lashed with marline, the hooks offer a quick and safe method of lengthening the cable.



J. E. M. shows interesting details of rope and wire work for small boats

J. E. M., Norwich, Conn.

ROPE END ON MOTOR BOATS

THE end of a rope seems of but little importance, but often, the utility of the rope depends on its end. Why keep the rest of the boat shipshape and neglect the ropes? An unraveled rope end with a knot in the end is not shipshape and such a line is unhandy to use and make fast. Rope is carried aboard a boat for a definite purpose and it will answer that purpose best when the end is finished off in a manner most suited to the purpose. The same end will not be best for all uses.

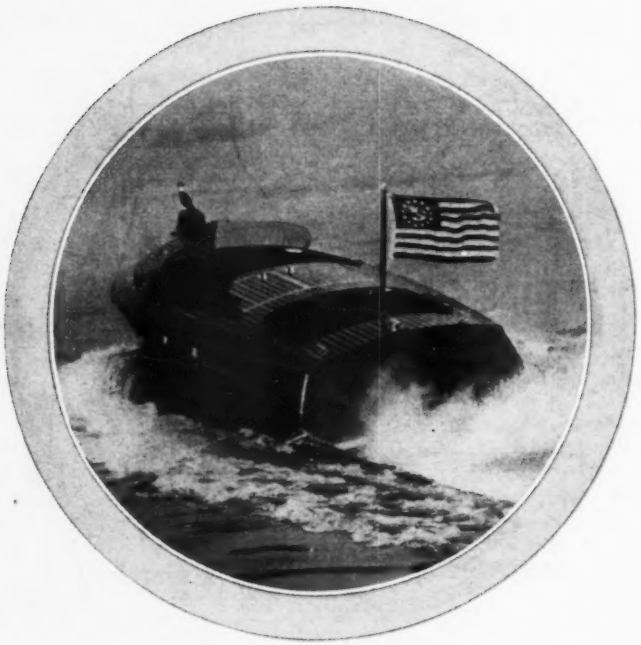
If not otherwise finished, all rope ends should be whipped. This applies from the storm anchor cable to the flag halyards. A temporary whipping may be made as follows: Take a piece of sail twine and lay a loop B along the lay (the depression between the strands of a rope). Leave an end A free and wind the twine C tightly around the rope, working towards the end until sufficient turns have been made. Ordinarily, whipping is extended to about equal the diameter of the rope. The strands of the loop B must be kept in the lay while winding. Then pass the end C through loop B and pull on A. Loop B will be drawn along the lay and under the whipping. Then the ends are cut off. Winding the end of a rope with friction tape is not a bad temporary method of preventing the strands from unraveling.

For a permanent whipping use a sailmaker's needle and palm. Thread the needle with twine, place the ends of the twine in the lay of the rope and bind them in place by winding the twine around the rope working towards the end until a sufficient number of turns have been made. By means of the needle the other end of the twine is led under a strand of the rope, over the face of the whipping following the lay and again passed under a strand of the rope. This process is repeated at each lay, always under a strand over the face of the whipping, following the lay and under a strand. The sewed whipping is very durable and will last until the twine wears out.

The anchor cable should be whipped and made fast to the anchor. It is just as important that the inboard end be securely made fast below deck. Not spliced to the mooring bitt post or foundation but made fast to it with a bowline which is quickly loosened in case it becomes necessary to bend on more cable. The fisherman's bend is the best knot for securing the anchor. The end is passed twice around the ring, then around the standing part, through the two round turns and seized to the rope.

When chain is used for the anchor cable, no special fitting or finish is needed for the end. It should be permanently made fast to the anchor and led in through the chain deck pipe to the chain locker. The chain deck pipes are made with a slot in the side so that the pipe may be covered even though the chain is fast to the anchor. The eye passes through the cover and forms a hook on the inside. By passing the hook through a link in the chain the cover is held securely by the weight of the chain, and at the same time the chain is easily reached. The inboard end is shackled to the mooring post or to a ring in the stem.

The average cruiser will use rope for mooring as it does not chafe the hull as chain would. This is generally spliced to the chain or mooring buoy and dropped overboard when leaving the mooring. You will make fast according to your own ideas. If a mooring bitt is used, a good sized eye splice will be good. Take a couple of turns around the bitt with the loop of the eye splice and it cannot loosen or slip. This fastening is easily made and loosened. The pull comes close to the deck and the fastenings and the strain on them is not so great. If a windlass is used, most likely, the line will be made fast around (*Continued on page* 104)



The new 17-footer just announced by Dee Wite

YARD AND SHOP

Notes of Interest to Both Owner and Manufacturer

NEW 17-FOOT RUNABOUT

THERE will be shown shortly by all Dee Wite dealers a new 17-foot Dee Wite model embodying numerous points of quality. The beam of this new boat is 5 feet 5 inches, and the freeboard is 29 inches, which insure for it exceptionally soft and easy riding qualities and seaworthiness and dryness under unusually severe conditions. Construction is of African mahogany over native white oak keel, chines and frames. The cockpits are roomy, seating five in comfort, and are upholstered in red Russialoid. Equipment is complete, including windshield, flags, mooring lines, anchor and anchor line. Hardware is of distinctive design and heavily plated to resist wear and corrosion.

STOCK CRUISER USES REDUCTION GEAR

The illustration below shows one of the latest model 33-foot double cabin Playmate cruisers, offered by the Wheeler Shipyard of Brooklyn, N. Y. This boat is powered with an 8-cylinder Universal engine with built-in reduction gear of 1¼ to 1 ratio, which drives the boat at a speed slightly in excess of 16 miles per hour. The engine swings a 20 by 16 propeller at 2800 r.p.m.

The accommodations include a large forward cockpit, clothes closet and bureau in the (*Continued on page 70*)

Latest model of the 33-foot double cabin Wheeler Playmate, powered with a reduction gear straight-eight Universal

O-V-I-N-G-T-O-N'S . . . S-O-S

SEND OUT SOME SMART SERVING THINGS! SEND OUT SOME SMART SERVING THINGS! OUR SHIP'S NOT FLOUNDERING BUT SKIPPER'S REPUTATION AS A SEA-GOING HOST IS SINKING IN THE EYES OF HIS DINNER GUESTS! (*Signed*) SPARKS.

MISTER, you're proud of that rakish lugger of yours. You want it right as a trivet from keel to top gallant, from the sheen of its brass to the tilt of your visored cap.

And certainly you want sea-going china and crystal . . . china born to the wind and the wave . . . crystal that takes to the great salt spaces like a whale's progeny or a fledgling gull.

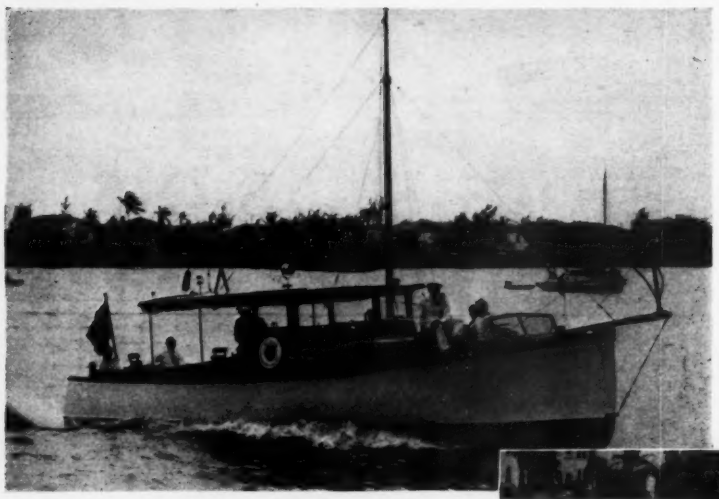
These are the services you'll find at Ovington's . . . nautical and nice. Every piece made to your order and delivered alongside two weeks after the design is approved. For as little as $63 you can choose a china service for six, decked and emblazoned with your club and house flags. And for even less you may snare its matching crystal. Toss your derelict goblets to Davy Jones and send for the man from Ovington's.

OVINGTON'S

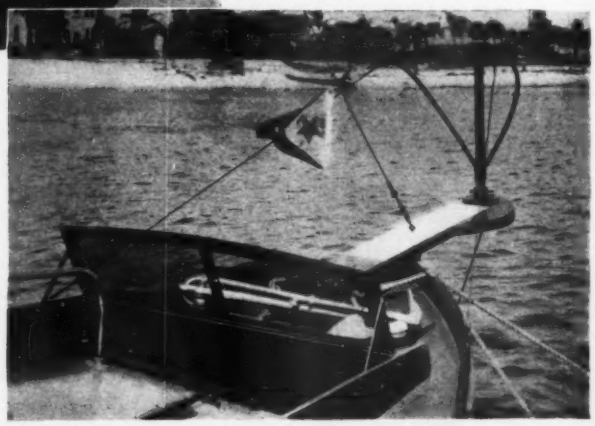
"The Gift Shop of Fifth Avenue, Inc."

437 FIFTH AVENUE

NEW YORK, N. Y.



Frank Cheek's Kemah is a Matthews 38 sport cruiser



Kemah is rigged with a pulpit for deep sea fishing

forward cabin, upper and lower berths for four, large size galley and toilet. After this comes a semi-enclosed bridge fitted with side and back curtains and an after cabin with full headroom, large size berths for two more people and hanging space for clothes with a bureau between the berths.

Equipment is most complete for a boat of this type. She has ample beam, is very comfortable and dry in a sea.

AN IDEAL FISHING CRUISER

The two illustrations above show the 38-foot Matthews sport cruiser Kemah, owned by Frank Cheek of Brooklyn. Mr. Cheek is one of the Cheeks of the Cheek-Neal Coffee Co. Kemah is arranged with special fishing equipment to provide ideal facilities for deep sea fishing off the Florida coast. The boat is powered with a 200 h.p. Sterling Petrel engine, and has a 25 h.p. Universal auxiliary engine for trolling speeds.

Mr. Cheek's Kemah is one of the best known boats on Lake Worth. It has a harpoon cage fitted out over the bow of the boat as shown in one of the illustrations and also has a special apparatus that can be utilized as a crow's nest where a lookout may maintain a watch for sailfish.

With its Sterling engine operating at full capacity Kemah is capable of a maximum speed of 21 miles an hour. Sleeping accommodations for four are provided as well as an ice chest, large galley, clothes lockers and all the necessary appurtenances for extended cruising.

BANFIELD OPENS NEW SHOW ROOMS

When Banfield Sea Skiff Works, Inc., brought out their new line of Sea Skiff Runabouts and Sedans early this winter they found their showrooms at 502 Lexington Avenue, New York City, woefully inadequate to properly display their new models. After considerable search a large enough showroom was located further downtown at 252-258 Fourth Avenue, corner of Twentieth Street. It may seem odd, but it was found that there were but three or four showrooms available that could be used for display of boats in the entire city.

The new offices and permanent salesrooms are located in the center of what may become more or less of a boat center in the city. Fourth Avenue is the continuation of Park Avenue and carries more private automobile traffic between the exclusive Park Avenue residential district and the financial district downtown than any other artery in the city. The new location is also centrally located midway between the Times Square-Grand Central business district and the downtown centers of industry.

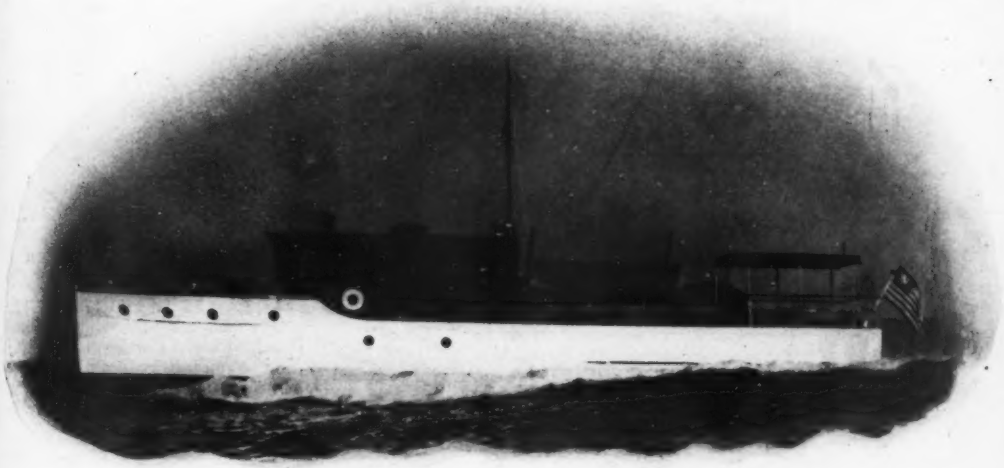
The new showrooms face 40 feet on Fourth Avenue and 125 feet on Twentieth Street. The back half of the showroom spreads out to a total of 60 feet in width giving a total floor space of over 5,000 square feet. This allows the display of all models with ample room to get a full broadside view of the respective boats. A large open office is maintained on one side of

(*Continued on page 122*)

The spacious new showroom of the Banfield Sea Skiff Works in New York City

Heavier Construction Without Sacrifice of Speed

The Vinyard 55



ONLY in a craft that measures up to your expectations in seaworthiness, maneuverability and speed, and secondly fulfills your ideas as to arrangement, comforts and conveniences, will you find genuine satisfaction and ceaseless pleasure. Such a craft is the Vinyard Fifty-Five Foot Twin-Screw Motor Yacht. Its harmonious proportions and even distribution of its 60,000 pounds weight in hull and equipment, (heavier than any other craft of equal length) provide for steadiness in a seaway, stability, absence of vibration at all speeds and lasting performance. Although of heavier and stauncher construction, speed is not sacrificed but rather enhanced by the Vinyard's superior hull design and perfect trim.

By every rule the Vinyard Fifty-Five should cost more than other craft of similar size. Actually it costs less to own and is much more economical to maintain. If you want the best in a motor cruiser, Pullman Palace Car comfort and safety—and are ready to buy, come to Milford and see why the Vinyard Fifty-Five is a better investment. Wire us and our representative will meet you half-way—or write today for full particulars.

VINYARD SHIP BUILDING CO.

Designers and Builders of Yachts and Cruisers of the Highest Class

MILFORD, DELAWARE

AMERICAN MOTOR BOAT RECORDS

(Continued from page 24)

MILE TRIALS, NAUTICAL MILES

CLASS B, DIVISION I

Baby Brontosaurus II, driven by Bill Lyon, at Newport Beach, Calif., Oct. 6-7, 1929. Built by Crandall Boat Co. Johnson 16 engine. Speed 36.185 nautical m.p.h.; 41.613 m.p.h.

CLASS B, DIVISION II

Salome, driven by A. G. Martin, at Newport Beach, Calif., Oct. 6-7, 1929. Built by F. V. Pierce. Johnson 16 engine. Speed 36.063 nautical m.p.h.; 41.472 statute m.p.h.

CLASS C, DIVISION I

Bossert Pirate, owned by Walter Peterssen, at Albany, N. Y., July 5, 1929. Built by Bossert. Evinrude engine. Speed 34.05 nautical m.p.h.; 39.15 statute m.p.h.

CLASS C, DIVISION II

Black Maria V, driven by Al Thomson, at Newport Beach, Calif., Oct. 6-7, 1929. Built by Al Thomson. Evinrude C engine. Speed 37.058 nautical m.p.h.; 42.617 statute m.p.h.

CLASS D, DIVISION I

Big Ben, owned by Harold Chapman, at Albany, New York, July 5, 1929. Built by Hallock. Johnson engine. Speed 38.09 nautical m.p.h.; 43.80 statute m.p.h.

CLASS D, DIVISION II

Blue Streak, driven by H. G. Ferguson, at Newport Beach, Calif., Oct. 6-7, 1929. Built by Lake Elsinore Boat Works. Johnson 32 engine. Speed 41.503 nautical m.p.h.; 47.728 statute m.p.h.

FIVE MILES

CLASS A, DIVISION I

Strange Interlude, owned by James Sullivan, at Boston, Mass., Oct. 5, 1929. Built by Porteus. Lockwood engine. Speed 23.29 m.p.h.

CLASS A, DIVISION II

B2, driven by A. E. Sutherland at Worcester, Mass., May 30, 1929. Built by Herbst. Lockwood engine. Speed 25.50 m.p.h. (4)

CLASS B, DIVISION I

Sweet 16, driven by N. C. Blanchard, at Cross Lake, La., August 4, 1929. Built by Ashbridge Boat Works. Johnson engine. Speed 36.95 m.p.h.

MADE UNDER NEW 1930 RULES

Flying Cloud II, driven by Harry Arnold at Lake Merritt, Oakland, Calif., Jan. 1, 1930. Built by Sulmock. Johnson engine. Speed 36.735 m.p.h.

CLASS B, DIVISION II

Ohkay, driven by H. S. Ferguson, at Peoria, Ill., Oct. 15, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 40.43 m.p.h.

CLASS C, DIVISION I

Vagabond, driven by B. A. Wheeler, Salton Sea, Calif., Dec. 14-15, 1929. Built by Elsinore. Evinrude engine. Speed 41.09 m.p.h.

CLASS C, DIVISION II

Blue Streak, driven by H. G. Ferguson, Salton Sea, Calif., Dec. 14-15, 1929. Built by Elsinore. Evinrude engine. Speed 42.35 m.p.h.

MADE UNDER NEW 1930 RULES

Blue Streak, driven by H. G. Ferguson, at Lake Merritt, Oakland, Calif., Jan. 1, 1930. Built by Elsinore. Evinrude engine. Speed 39.13 m.p.h.

CLASS D, DIVISION I

Peggy Lee, driven by Floyd Hodges at Cross Lake, La., August 4, 1929. Built by Ashbridge Boat Works. Johnson engine. Speed 41.06 m.p.h.

MADE UNDER NEW 1930 RULES

Lazy, driven by Francis Wilber, at Lake Merritt, Oakland, Calif., Jan. 1, 1930. Built by Wilbur. Johnson engine. Speed 39.824 m.p.h.

CLASS D, DIVISION II

Blue Streak, driven by H. G. Ferguson, Salton Sea, Calif., Dec. 14-15, 1929. Built by Elsinore. Johnson engine. Speed 45.34 m.p.h.

CLASS E, DIVISION I

Thoroughbred Baby, owned by Col. S. Tooey, at Boston, Mass., October 5, 1929. Fay & Bowen boat, Johnson engine. Speed 34.82 m.p.h.

CLASS E, DIVISION II

Ludington, driven by J. Dunnell, at Worcester, Mass., May 30, 1929. Ludington boat, Johnson engine. Speed 40.36 m.p.h. (5)

SIX MILES

CLASS B, DIVISION I

Crandall Comet, driven by Charles Adams, at Newport Beach, Calif., Oct. 27, 1929. Built by Crandall Boat Co. Johnson engine. Speed 34.269 m.p.h.

CLASS B, DIVISION II

Blue Streak, driven by H. G. Ferguson at Elsinore, Calif., July 28, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 40.54 m.p.h.

CLASS C, DIVISION I

Blue Streak IV, driven by Chuck Hall, Lake Elsinore, Calif., July 28, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 37.75 m.p.h.

CLASS C, DIVISION II

Blue Streak, driven by H. G. Ferguson at Lake Elsinore, Calif., July 28, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 40.63 m.p.h.

CLASS D, DIVISION II

Blue Streak, driven by H. G. Ferguson, at Newport Beach, Calif., Oct. 27, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 43.584 m.p.h.

CLASS E, DIVISION I

Ceestepper, driven by L. E. Preston at Red Bank, N. J., August 25, 1929. Built by Penn Yan Boat Works, Johnson engine. Speed 40.227 m.p.h.

TEN MILES

CLASS B, DIVISION I

MADE UNDER NEW 1930 RULES

Flying Cloud II, driven by Harry Arnold, at Lake Merritt, Oakland, Calif., Jan. 1, 1930. Built by Sulmock. Johnson engine. Speed 36.182 m.p.h.

CLASS B, DIVISION II

Crandall Comet, driven by Charles Holt, at Salton Sea, Calif., Dec. 14-15, 1929. Built by Crandall Boat Co. Johnson engine. Speed 38.83 m.p.h.

CLASS C, DIVISION I

Miss Genn III, owned by Robson Cupplls, at White Rock Lake, Dallas, Texas, Sept. 8, 1929. Built by R. Allen Smith. Evinrude engine. Speed 40.089 m.p.h.

CLASS C, DIVISION II

Blue Streak II, owned by L. Baughman, driven by H. G. Ferguson, at San Diego, Calif., Dec. 16, 1928. Built by Holt. Evinrude engine. Speed 38.59 m.p.h. (B)

CLASS D, DIVISION I

I'm Alone, owned by E. Widegren, Oyster Bay, N. Y., Sept. 29, 1929. Built by D. N. Kelley Co. Johnson motor. Speed 47.36 m.p.h.

CLASS D, DIVISION II

Blue Streak IV, owned by Dr. Baughman, at Lake Elsinore, Cal., Sept. 22, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 44.12 m.p.h

CLASS E, DIVISION II

Miss Mystery, owned by L. F. Davids, at Boston, Mass. Oct. 5, 1929. Built by Fay & Bowen. Johnson engine. Speed 40.36 m.p.h.

FIFTEEN MILES

CLASS B, DIVISION I

Crandall Comet, driven by Chas. Adams at Newport Beach, Cal. Oct. 27, 1929 Built by Crandall Boat Co. Johnson engine. Speed 37.383 m.p.h.

CLASS B, DIVISION II

Blue Streak, driven by H. G. Ferguson at Lake Elsinore, California, July 28, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 40.40 m.p.h.

CLASS C, DIVISION I

Vagabond, driven by B. A. Wheeler at Newport Beach, Cal., Oct. 27, 1929. Built by Lake Elsinore Boat Works. Evinrude engine. Speed 35.785 m.p.h.

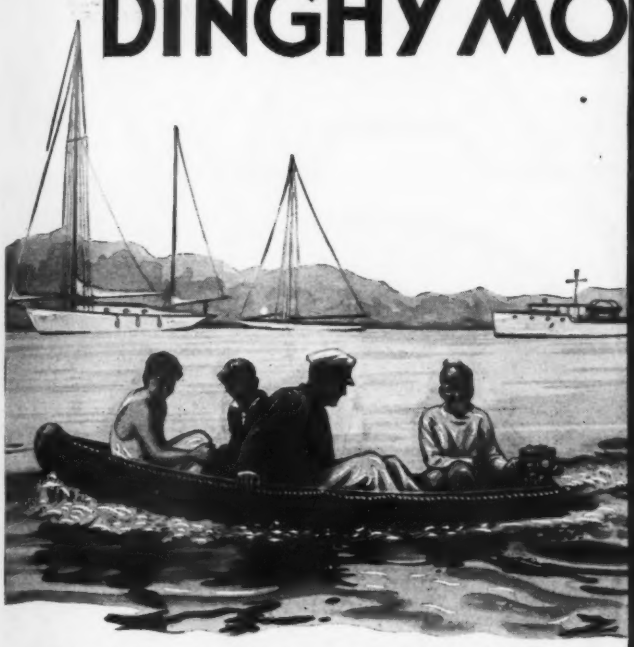
CLASS C, DIVISION II

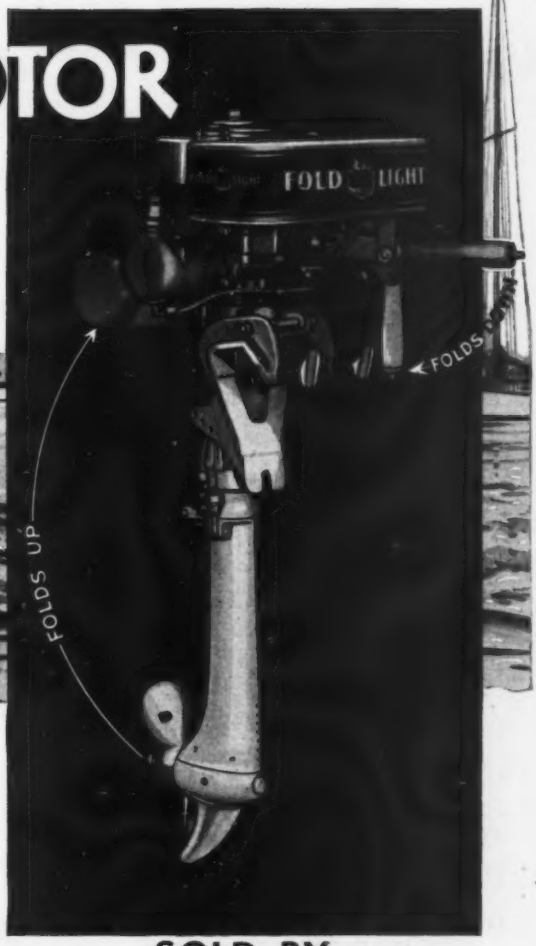
Blue Streak IV, driven by H. G. Ferguson, at Lake Elsinore, Cal., July 28, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 40.31 m.p.h.

CLASS D, DIVISION II

Blue Streak, driven by H. G. Ferguson, at Salton Sea, Calif., Dec. 14-15, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 44.92 m.p.h.

This is the DINGHY MOTOR





IF we had designed the new Fold-Light *for Yachtsmen only*, it wouldn't be different by a hair's-breadth from what it is now.

If you had written the specifications personally, you would not have asked for less weight (29 pounds) or smaller size (17″ x 11½″ x 13¾″, folded) or bigger power (2¾ horsepower). Nor could you have asked for finer construction, easier operation or greater dependability.

If you cruise, or your moorings are more than a cable's length from the dinghy float, you want an outboard. Once, when motors did not *fold* and were awkward to stow, there was some reason for not carrying one. But it isn't worth while to hold out against Fold-Light.

If you want to know more about Fold-Light, and see and handle the motor yourself, send coupon for a catalog and name of a nearby dealer.

OUTBOARD MOTORS CORPORATION
OLE EVINRUDE, President
5122-27th Street Milwaukee, Wisconsin

SOLD BY
EVINRUDE
Elto
LOCKWOOD
DEALERS THROUGHOUT THE WORLD

FOLD LIGHT

WORLD'S LIGHTEST TWIN OUTBOARD

OUTBOARD MOTORS CORPORATION
5122-27th Street, Milwaukee, Wis.
Send me literature on the Fold-Light.

Name.....

Address.....

.....

GRAY "8"

The Mightiest, Fastest, Marine Power Plant per Pound of Weight and Per Dollar of Price Ever Presented—

Made in cruiser, cruiser reduction gear, hi-speed, racing and twin opposite rotation models.

140 H.P. with Downdraft carburetor in Racing Type.

Develops 129 H.P. in Hi-Speed Type.

*t*s under 60 inches in length.

Is only 20 inches high above center of shaft.

Has counter-balanced 5-bearing crankshaft, 2⅝" in diameter.

Has a bore of 3⅜".

Has a stroke of 4½".

322 cubic inches displacement.

Salt-water resisting aluminum base and housings for lightness.

Has pressure lubrication to camshaft bearings, connecting rod bearings and crankshaft.

Has accessible, effective, practical type oil cooler.

Has extra deep water jackets.

Has removable, bronze geared, very low-speed water pump.

Weighs only 810 lbs. with aluminum base.

Has lifting Rings.

Has fuel pump.

Has tachometer fitting.

Has flame arrester.

Has drip pan.

$1115 to $1335.

25 foot Hacker "Dolphin," 36 M.P.H. with Gray Downdraft "Eight," turning 15" x 15" propeller

Advertising index will be found on 3rd last page

The Master of them all . . . .

Opposite Rotation 8's Matched Units

Lavish claims were made for the Gray "Eight" when it was announced to the boating public. Claims Gray had never made for any other motor. Because Gray knew from years of motor building that it had achieved a motor years in advance of its time—a power plant that would successfully challenge engineering skill the world over for years to come.

The glowing accounts of the mighty Gray "Eight" in service have proven every claim made for it more than justified. Gray "Eight" has indeed swept the marine world and has scored a triumph. Today, every owner is an enthusiastic owner and stands ready to recite its merits to you.

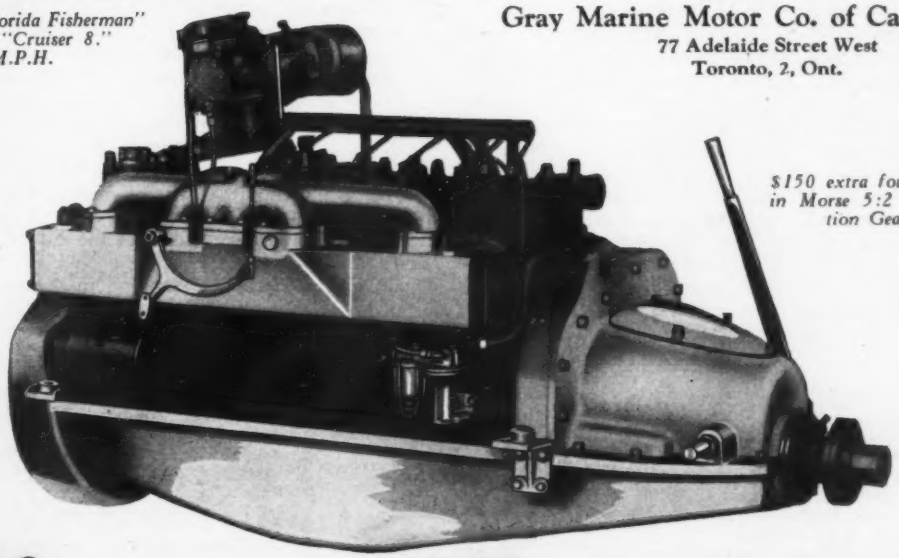
Richardson "Florida Fisherman" with Gray "Cruiser 8." 18 M.P.H.

Get into a boat, Gray "Eight" powered. Know this new speed that literally pushes back the horizon before you and opens up new worlds of happy adventure. Touch the throttle and feel the response and flow of power that gives owners a new sense of command of all they survey.

You live but once—live in a boat that makes a minute stretch out into distance. Write for the facts on Gray "Eight."

Gray Marine Motor Co.
680 Canton Avenue
Detroit, Mich.

Gray Marine Motor Co. of Canada, Ltd.
77 Adelaide Street West
Toronto, 2, Ont.



$150 extra for Built-in Morse 5:2 Reduction Gear

GRAY MOTORS

LEILA, A SEA GOING RUNABOUT

(*Continued from page 63*)

nace for heating. Keep water above the furnace and the solder will not melt. Use ¼ inch diameter brass bolts for fastening the chine into the chine knees. Do not fasten it to the frames.

The bottom planking will be made from ⅝ inch white cedar, but the seams might just as well run with the keel. It is not necessary to divide the space so that each plank runs full length of the boat.

Fastenings in all the planking will be screws, either brass or galvanized. The heads should not be countersunk and plugged, because so little wood is left for holding. If brass screws are used drive in flush and file smooth with surface. If galvanized are used these should be set in a little and afterwards puttied over.

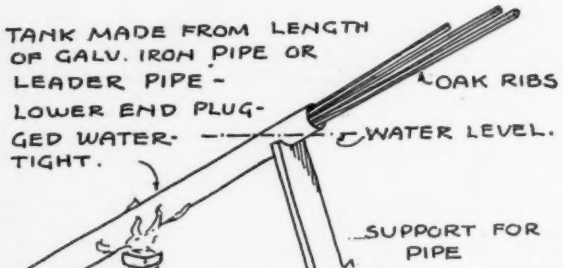

TANK MADE FROM LENGTH OF GALV. IRON PIPE OR LEADER PIPE - LOWER END PLUGGED WATER-TIGHT.
OAK RIBS
WATER LEVEL.
SUPPORT FOR PIPE
PLUMBERS GASOLINE FURNACE

Figure 5, A simple arrangement for steaming the oak ribs

Always remember in building a boat that paint should be used behind all joints. For instance, the notches for the battens should be painted, the rabbet along the chine, the face of the battens, the rabbet in the keel, etc.

The clamps will be made from 1⅛ by 2 inch fir and should be fastened to the heads of the frames with screws, two to each frame. The deck beams will be made from ⅞ by 2 inch oak and are spaced as follows: One at the head of each frame, and one in between. Fasten into the clamps with long galvanized nails. The deck will be ⅝ by 3 inch tongue and groove white cedar fastened with galvanized boat nails and then covered with canvas. The canvas should be laid in Jeffrey's liquid glue. There are two half round mouldings, one along the deck, the other along the sheer. The deck moulding covers the edge of the canvas as shown in Figure 4.

Use a good grade of plywood for the cockpit flooring, the seats, bulkhead, etc. This is light, strong and keeps very well if it is thoroughly painted.

The coaming will be made from ½ inch mahogany and projects but half an inch above the deck, as shown.

Figure 3 shows the details of the hatch covers and

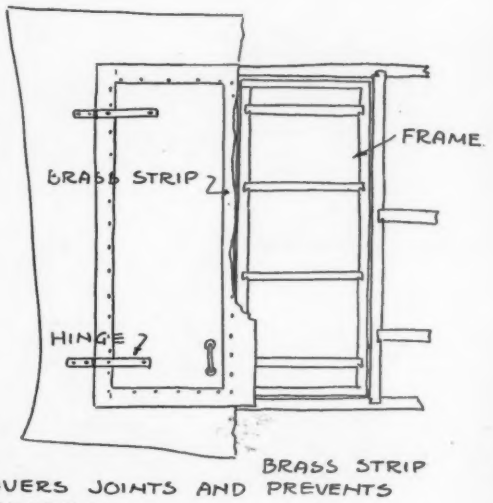


Figure 3, The hatch covers. Left hand cover is finished, right hand in frame

deck in its vicinity. The hatches will be the same construction as the deck and made from similar materials. Two hinges are shown for each hatch. It may be easy for some of you to get hold of piano hinges, this being the case, use the latter. However, with piano hinges there will be some leakage, while with the single hinges and wide brass edging leakage here will be nil.

Now we have covered the principal features of this little craft, and she is one that I know will prove to be more than satisfactory. It occurs to me that those who contemplate building to this design may wish to secure blue prints drawn to a scale of ¾ inch to the foot and if so these can be obtained from the Editor, MoToR BoatinG, 959 Eighth Avenue, New York, N. Y. Send for the circular describing interesting book of small boat designs and useful hints for amateur builders.

COMMODORE SCHANTZ

Scanning the whole country for one worthy of the honor, the Past Commodores of the Regatta Circuit Riders' Club, acting as a nomination committee, hit upon A. A. Schantz of Detroit as their choice for Commodore of that serviceable young organization. At the seventh annual meeting of the R.C.², Commodore Schantz was elected to that high office by unanimous vote, despite his absence, due to illness.

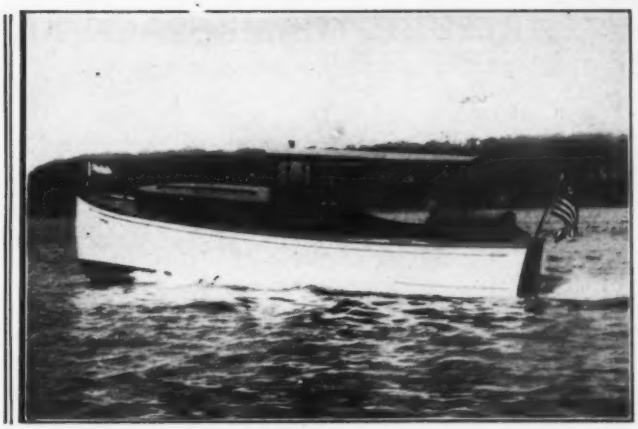
So far as mere titles are concerned, to make "Gus" Schantz commodore of anything more is to add gold leaf to the petal of the lily. If he were to enlist in the Army as a private, the title of General would be changed to Commodore so that he might eventually wear it. He has been Commodore of the Gold Cup Committee since its inception; he is Commodore of the Yachtsmen's Association of America; and has thrice held the title in Detroit Yacht Club.

But Commodore Schantz's latest honor is a reward of merit, nationally recognized, no less than locally where sportsmen know him as the individual responsible for all Detroit Regattas, the 14th of which will be run this fall, and as the individual to whom we are chiefly indebted for the realization of Detroit Yacht Club's superb home. An organization such as the Circuit Riders, consisting of men "interested in the industry or sport of motor boating," is quick to evaluate spirit and accomplishment, as this election revealed. (*Editorial in Detroit Yacht Club Main Sheet.*)

DEVELOPMENT AT CRAGSTON

Work on the re-arrangement of the mansion and estate formerly owned by J. P. Morgan is rapidly going forward in its development into the Cragston Yacht and Country Club, which acquired it not long ago as its headquarters. The Morgan mansion is undergoing extensive alterations in order to convert it to the requirements of a modern and exclusive country clubhouse and the grounds are being laid out to provide facilities for the enjoyment of many different sports, among which are a polo field, snowshoe trail and ski-jump, lake for ice skating and two golf courses. Horton Smith, a brilliant young golfer from Joplin, Missouri, has recently been selected as professional to take care of the club's golfing activities.

Richardson 1930 Cruisabouts chart a safe course



with W-C FITTINGS

THE climax of Richardson's 27 years of boat building is apparent in the design and construction of the 1930 Richardson Cruisabouts. Large production makes possible offerings of unusual value to the boat buyer. Quality has not been sacrificed either, as evidenced by the many W-C Fittings throughout the 1930 craft.

Should you step aboard a Cruisabout tomorrow, you would notice such fittings as port lights, anchors, mooring bitts or compass. You probably wouldn't notice many other less conspicuous items. But every one of the numerous W-C Fittings plays its dependable part in the ultimate safety of the craft.

For 83 years, Wilcox-Crittenden has been a name known throughout the world for reliable marine hardware. Today, those years of invaluable experience appear in the factor of safety and dependability of all W-C Fittings. But Wilcox-Crittenden engineers and designers did not stop with seaworthiness. They have added the modern touch and grace of line which harmonize with the craft of 1930. They have developed new items, added new features, improved existing fittings until the W-C line of Marine Hardware is unique in its adaptability and helpfulness to the boats of today.

Fig. 8572
High-Speed Intake Strainer

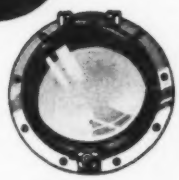


Fig. 5253
"Sea-more" Port Light

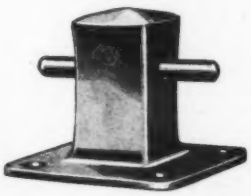


Fig. 4190
Polished Brass Mooring Bitt

Fig. 8552
Electric Lighted Binnacles with Oil Compass

It's easy to keep up with these new developments, to keep your boat up-to-date. Just fill out and mail the coupon below. We will send you *free* the new book we've prepared . . . The 1930 Boating Manual and Catalog. It not only describes the new fittings but also contains a wealth of information helpful to every boatman . . . proper weights of anchors, hints on mooring, instructions in the care of boats, how to box the compass, rules of the road at sea and many other articles which make this book a reference guide you can't afford to do without —a book you'll use the whole 1930 boating season. Send for your copy today, or ask your dealer to get it for you. WILCOX, CRITTENDEN & CO., INC., 4 South Main Street, Middletown, Connecticut.

Wilcox-Crittenden *Dependable* Marine Hardware

WILCOX, CRITTENDEN & CO., INC., 4 So. Main Street, MIDDLETOWN, CONNECTICUT

Send me free of charge the 1930 Boating Manual and Catalog.

NAME.....

ADDRESS.....

CITY.....STATE.....

Est. 1847

Mention MOTOR BOATING, *57th St. at Eighth Ave., New York*

RESULTS MIAMI BEACH REGATTA, MARCH 26-27, 1930

CLASS B—DIVISION II—TWO HEATS OF 3 MILES EACH.

Position	Boat	Driver	Time 1st heat	Time 2nd heat	Builder	Motor
1	Full Quart	J. B. Maypole, River Forest, Ill.	6:24.93	6:15.77	Ramsey	Johnson
2	NJ 37	W. A. Wylie, Wildwood, N. J.	6:27.84	6:20.45	Ludington	Johnson
3	Baby Belle	Max Brown, Miami, Florida.	7:15.62	.....	Ramsey	Evinrude
4	Sea Squawk	Maxwell Lee, Miami, Florida.	9:32.11	.....	Ramsey	Caille

Best heat speed, 28.74 m.p.h.

CLASS B—DIVISION III—TWO HEATS OF 3 MILES EACH.

1	Mercury Too	W. B. Tuck, Philadelphia, Pa.	5:42.75	5:54.16	Ludington	Johnson
2	Butterfinger	H. M. Fraser, Auburndale, Fla.	6:37.27	6:19.31	Ludington	Johnson
3	Cyclone	O. P. Shields, Manistee, Michigan.	6:40.18	6:08.36	Century	Johnson
4	Miss Quaker State	E. Dunn, St. Petersburg, Florida.	6:47.82	6:06.78	H. & S.	Johnson
5	Century	J. T. Millikin, St. Louis, Mo.	7:46.57	5:58.68	Century	Johnson
6	F 320	F. E. Johnson, Miami, Florida.	6:59.42	6:35.55	Johnson	Johnson
7	Hurricane	G. P. Moore, Manistee, Michigan.	7:18.77	6:49.07	Century	Johnson

Best heat speed, 31.15 m.p.h.

CLASS C—DIVISION II—TWO HEATS OF 3 MILES EACH.

1	Vampire	P. B. Sawyer, Allentown, Pa.	5:50.89	5:56.20	Hodgson	Evinrude
2	Full Quart	J. B. Maypole, River Forest, Ill.	6:02.49	5:50.83	Ramsey	Evinrude

Best heat speed, 30.78 m.p.h.

CLASS C—DIVISION III—TWO HEATS OF 3 MILES EACH

1	West Palm Beach Baby	J. T. Millikin, St. Louis, Mo.	5:06.72	5:13.57	Mullins	Evinrude
2	Mercury Too	W. B. Tuck, Philadelphia, Pa.	5:37.13	5:35.42	Ludington	.....
3	F 352	James Grant, Miami, Florida.	5:55.64	5:50.83	.....	.....
4	Butterfinger	H. M. Fraser, Auburndale, Fla.	6:09.95	6:24.27	.....	.....
5	Baby Ruth	Malcolm Pope, Winter Haven, Florida.	5:13.18	.....	Century	Evinrude
6	Miss Quaker State	Morgan Powell, St. Petersburg, Florida.	6:04.21	.....	H. & S.	Johnson
7	B 44	W. C. Sirman, Miami, Florida.	6:21.21	.....	Ludington	Evinrude
8	Baby Ruth's Papa	Jack Kerr, Winter Haven, Florida.	6:28.13	.....	.....	.....

Best speed heat, 35.21 m.p.h.

CLASS D—DIVISION II—TWO HEATS OF 3 MILES EACH.

1	Modernistic Rhythm	Leach Cracraft, Miami, Florida.	5:04.59	5:04.44	Isle La Plume	Johnson
2	Silver Streak	Jim Gelatt, Miami, Florida.	5:02.39	5:07.19	Isle La Plume	Johnson
3	King Rhythm	C. A. Durand, Miami, Florida.	.....	5:27.02	Isle La Plume	Johnson
4	Skillet	C. Sawyer, Miami, Florida.	6:04.14	.....	Kelley	Johnson
5	J 36	Albert Nagell, Drexel Park, Pa.	8:01.31	.....	Ludington	Johnson

Best heat speed, 35.7 m.p.h.

CLASS D—DIVISION III—TWO HEATS OF 3 MILES EACH.

1	West Palm Beach Baby	Dick Upsall, Winter Haven, Florida.	4:42.39	4:51.96	Mullins	Johnson
2	Baby Ruth's Papa	H. M. Fraser, Auburndale, Florida.	4:52.63	4:53.72	.....	.....
3	Cyclone	J. T. Milliken, St. Louis, Mo.	4:50.76	4:54.14	Century	Johnson
4	Baby Ruth	Malcolm Pope, Winter Haven, Fla.	5:01.01	4:54.62	Mullins	Johnson
5	Oh Boy 6	F. M. Baker, Saranac Lake, N. Y.	5:09.90	5.06.34	Johnson	Johnson
6	Hurricane	G. W. Knight, St. Louis, Mo.	5:03.29	.....	H. & S.	Evinrude
7	Mercury 2	W. B. Tuck, Philadelphia, Pa.	5:35.59	.....	.....	.....
8	Chicos	Jack Kerr, Winter Haven, Florida.	5:36.96	.....	Mullins	.....
9	Flash	J. Dunnell, Philadelphia, Pa.	7:42.37	.....	Ludington	Johnson

Best heat speed, 38.24 m.p.h.

CLASS E—DIVISION III—TWO HEATS OF 3 MILES EACH.

1	Oh Boy 6	F. M. Baker, Saranac, N. Y.	7:26.37	7:38.85	Johnson	Johnson
2	Baby Ruth	Malcolm Pope, Winter Haven, Florida.	7:42.19	8:10.07	.....	.....
3	Baby Ruth's Papa	H. M. Fraser, Auburndale, Florida.	10:09.99	7:23.67	Mullins	Johnson
4	Cyclone	Willis Overton, St. Louis, Mo.	7:25.22	.....	Century	Johnson
5	Hurricane	William Frey, Madison, Wisconsin.	8:07.04	.....	Century	Elto

Best heat speed, 36.51 m.p.h.

COLONEL GREEN TROPHY RACE—TWO HEATS OF 4½ MILES EACH.

1	Flash	H. Ross Maddocks, Cambridge, Mass.	7:28.98	7:28.01	Ludington	Johnson
2	NJ 36	Albert Nagell, Drexel Park, Pa.	7:35.39	7:55.89	Ludington	Johnson
3	Silver Streak	Jim Gelatt, Miami, Florida.	8:09.60	7:34.57	La Plume	Johnson
4	Vampire	Paul Sawyer, Allentown, Pa.	8:52.30	8:34.74	.....	.....
5	Fighting Gator	Charles Backman, Gainsville, Florida.	10:20.22	10:47.09	.....	.....
6	King Rhythm	C. A. Durand, Miami, Florida.	.....	7:46.05	.....	.....
7	Oh-10	Gibson Bradfield, Barnesville, Ohio.	7:54.05	.....	Ludington	Johnson
8	Modernistic Rhythm	Leech Cracraft, Miami, Florida.	8:15.83	.....	Johnson	.....
9	Skillet	C. Sawyers, Miami, Florida.	8:59.45	.....	Evinrude	.....
10	NJ 37	William A. Wylie, Wildwood, N. J.	9:21.60	.....	.....	.....
11	Pokus	E. R. Lott, La Grange, Ill.	11:52.43	.....	.....	.....

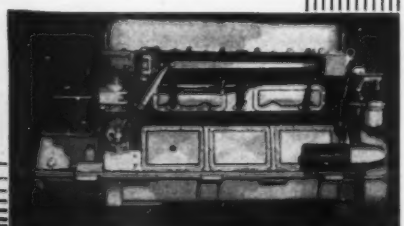
Best heat speed, 36.15 m.p.h.

(Continued on page 80)

ROBINSON

TURNS TO KERMATH + + + FOR SINGLE AND TWIN SCREW POWER

ROBINSON Seagull CRUISERS



The new Kermath valve-in-head "Six" 225 Horsepower Engine is now standard power beneath the bridge decks of those stalwart cruisers and commuters—The Robinson Seagulls! Impressive specifications provide this 678 cubic inch marine motor with incomparable features of safety, dependability, long life, unlimited power delivery and performance for the discriminating yachtsman. Down-draft carburetion with specially designed backfire flame arrester and perfect crankcase ventilation... Dual Delco ignition, specially built to resist the action of salt water corrosion. New type oil cooler and purifier for mechanical efficiency and economical operation... Chrome nickel iron cylinder blocks, the recognized "last word" in wear-resisting and anti-warping qualities... Dual valve-in-head design of proven merit and accessibility... A seven-bearing crankshaft, machined all over and perfectly balanced—both statically and dynamically. Here's power! Abundant power—smooth as silk—for speed at sea!

KERMATH

KERMATH MANUFACTURING COMPANY
5879 COMMONWEALTH AVE., DETROIT, MICH.

RESULTS MIAMI BEACH REGATTA, MARCH 26-27, 1930

(*Continued from page —*)

RUNABOUTS—55 HORSE POWER—TWO HEATS OF 4½ MILES EACH.

Position	Boat	Driver	Time 1st heat	Time 2nd heat
1	No. 12	Paul Prigg, Miami, Florida.	10:25.24	13:04.63
2	No. 19	R. E. Holden, Miami, Florida.	10:48.30	14:07.09
3	No. 25	C. T. Ludington, Miami, Florida.	12:44.03	16:08.47

Best heat speed, 25.91 m.p.h.

RUNABOUTS—125 HORSE POWER—TWO HEATS OF 4½ MILES EACH.

1	No. 4	C. S. Harrington	9:38.97	9:31.80
2	Disturber	C. T. Ludington, Miami, Florida.	9:25.77	9:55.68
3	Chris Craft	R. Massey	9:00.00	9:02.25
4	Dee Wite	Joseph Dodge	9:18.12	.....

Best heat speed, 29.87 m.p.h.

RUNABOUTS—200 HORSE POWER—TWO HEATS OF 4½ MILES EACH.

1	Sea Lyon	Jack Rutherford	7:38.54	9:57.99
2	Chris Craft	E. R. Jones	7:39.97	10:23.15
3	Miss Elizabeth II	Roger Firestone	7:41.81	10:14.85
4	Clara		8:08.22	10:27.47
5	Sea Lyon	H W. Lyon	.....	7:52.93
6	Biscayne Baby	R. S. Evans	8:33.45	.....

Best heat speed, 35.32 m.p.h.

RUNABOUTS—250 HORSE POWER—ONE HEAT OF 4½ MILES

Position	Boat	Driver	Heat
1	Chris Craft	H. A. Mendelson	6:48.07
2	Chris Craft	C. Perry	6:59.12
3	Baby Gar	Gordon James	7:23.68
4	Miss Elizabeth	R. Firestone	7:36.85
5	No. 15		7:51.51

Best heat speed, 39.69 m.p.h.

151 HYDROPLANES—LIMITED—THREE HEATS OF 4½ MILES EACH.

Position	Boat	Driver	Time 1st heat	Time 2nd heat	Time 3rd heat
1	Meadowmere II	Chris Ripp, Jamaica Bay, N. Y.	6:39.22	6:36.41	7:45.48
2	Sparrow II	Elmer Johnson, Bennington, Vt.	8:09.84	7:50.57	7:50.57
3	Bayhead II	Chris Ripp, Jamaica Bay, N. Y.	6:20.47	6:24.14	.....
4	Habana II	R. Suero, Habana, Cuba.	.....	6:40.30	6:46.80

Best heat speed, 42.35 m.p.h.

151 HYDROPLANES—UNLIMITED—TWO HEATS OF 4½ MILES EACH.

Position	Boat	Driver	Time 1st heat	Time 2nd heat
1	Bayhead II	Chris Ripp, Jamaica Bay, N. Y.	6:53.44	6:54.12
2	Buckeye II	Gibson Bradfield, Barnesville, Ohio.	5:56.26	7:49.12
3	Miss Daytona	Chris Ripp, Jamaica Bay, N. Y.	7:05.73	6:59.11
4	Sparrow V	Elmer Johnson, Bennington, Vt.	.....	5:53.10

Best heat speed, 45.87 m.p.h.

CHANCE RACE—ONE HEAT OF 4½ MILES.

Position	Boat	Driver	Time
1	Baby Gar	Gordon James	6:40.32
2	Sea Lyon	John Rutherford	6:55.90
3	Miss Elizabeth	R. Firestone	7:57:62
4	No. 96		8:00.09
5	Gar Sr	Gar Wood	.....

FREE FOR ALL RACE—ONE HEAT OF 6 MILES.

1	Buckeye	Gibson Bradfield, Barnesville, Ohio.	9:25.41
2	Chris Craft	E. R. Jones	9:27.74
3	Chris Craft	H. A. Mendelson	9:39.36
4	Sea Lyon	Jack Rutherford	10:20.94

Best speed, 38.20 m.p.h.

EXPRESS CRUISER HANDICAP—ONE HEAT OF 6 MILES.

1	Gar Sr. II	Gar Wood, Miami, Florida.	16:08.34
2	Victor E	Victor Erhert	17:05.82
3	Margaret F	T. B. Funk	17:23.75
4	Ming Toy	H. G. Dechant	17:29.33
5	Shadow H	Carl Fisher, Miami Beach, Fla.	17:30.22
6	Cora S	Kenneth G. Smith, Palm Beach, Fla.	18:01.16

EXPRESS CRUISER FREE FOR ALL—ONE HEAT OF 6 MILES.

1	Gar Sr. II	Gar Wood, Miami, Florida.	15:40.75
2	Margaret F	T. B. Funk	16:25.26
3	Ming Toy	H. G. Dechant	16:30.07
4	Shadow H	Carl Fisher, Miami Beach, Florida.	16:41.71
5	Cora S	Kenneth G. Smith, Palm Beach, Fla.	18:16.21
6	Comet II	Mr. Williams	20:35.38

If it's Humphreys-built, it's honorably built

HUMPHREYS SEA-CRUISERS

The Last Word in Sea Comfort

To meet the increasing demand for Diesel-powered craft of moderate size, we have standardized the Humphreys 43 and 48 foot Sea-Cruisers. In both of these models the well-known Humphreys standards of craftsmanship will be incorporated, and through production methods we are able to offer them at prices that compare most favorably with high-grade Gasoline-powered cruisers.

The recent exhibit in the Detroit Aeronautical Show of five Diesel-powered Aeroplanes justifies our conviction that Diesel is logically the ultimate power plant for all types of vessels. As pioneers in the adaptation of Diesel power, we are in a position to offer a truly practical cruiser that comprises the three essential requisites demanded in every boat: *safety, economy* and *reliability.*

Our long years of experience have enabled us to work out a deck and cabin arrangement combining not only spaciousness but maximum accommodations for a boat of this size. These Cruisers are delivered completely equipped, their furnishings artistically refined.

If you will ring MURray Hill 2320, we will be happy to make arrangements to take you to our plant in Keyport, New Jersey, where you can inspect the various Cruisers we have under construction and be given an actual demonstration of Diesel performance. Specifications and equipment of the 43 and 48 Standardized Models will be sent on request. We would also be glad to confer with you in reference to our custom-built Cruisers of larger size.

FREDERIC P. HUMPHREYS INC.

230 Park Avenue — New York City

HUMPHREYS

Cable Address: HUMPFRED

PROPULSION PLANT OPTIONAL—Diesel or Gas

NAVAL ARCHITECTS AND YACHT BROKERS

WILLIAM ATKIN
NAVAL ARCHITECT
THE MIZZEN TOP, HUNTINGTON, N. Y.
Send 50 cents for illustrated list of stock plans

FLORIDA SERVICE
If you have a boat in Florida waters that you want sold, insured, surveyed, or cared for in any way; or if you wish to purchase one; I can serve you. Over fifteen years' experience as a Naval Architect, Shipbuilder and Inspector. My list of all classes of boats for sale and charter is very extensive.
HAROLD H. BAILEY, 206 Exchange Building, Miami, Florida

THOMAS D. BOWES, M. E.
NAVAL ARCHITECT AND ENGINEER
Offices:
Lafayette Bldg., Chestnut and Fifth Sts., PHILADELPHIA, PA.

COX & STEVENS, Inc.
Naval Architects and Engineers — Yacht Brokers
521 Fifth Avenue
(Corner of 43rd Street) New York City
Telephone: Vanderbilt 8811

ADVERTISERS . . .

The Detroit Boat Market

Is Awaiting Your Message

What more timely! Your announcement to Detroit's vast population of yachtsmen and boating enthusiasts concurrent with the Detroit Motor Boat Show. Besides its regular circulation of 4,300, the D. Y. C. MAIN SHEET offers you the added inducement of another 6,000 copies circulated during the Detroit Boat Show. No increase in rates. Space reservations taken now. Closing dates March 15th to 18th.

W. D. EDENBURN, *Editor*
5-218 General Motors Bldg., Detroit

The Main Sheet

THE FIRST BIG REGATTA OF 1930

(*Continued from page* 42)

W. B. Tuck of Philadelphia, was the winner in both three mile heats, with H. M. Fraser of Auburndale, Florida, finishing in second place. Both Mr. Tuck and Mr. Fraser drove Ludington hulls powered with Johnson Class B motors. The best heat speed in this race was 31.15 miles per hour.

In Class C, P. B. Sawyer of Allentown, Pennsylvania, and J. P. Maypole tied for first place, each having won a heat. However, as Mr. Sawyer had the best total elapsed time for the two heats he was awarded first place in this event. His best speed was 30.78 miles per hour.

In Division III of the same class, both three mile heats were taken by West Palm Beach Baby driven by Dick Upsall and owned by J. T. Milliken of St. Louis, Mo. Mr. Upsall drove a Mullins boat, with an Evinrude motor. Mercury II, a Ludington boat driven by W. B. Tuck of Philadelphia finished in second place.

Young Stribling was keenly interested in the outboard racing at Miami Beach. Left to right: D. K. Chadbourne, Vice-President of Outboard Motors Corporation; Dick Upsall, Young Stribling and J. T. Milliken of St. Louis.

In Class D, Division II, Leach Cracraft driving Modernistic Rhythm and Silver Streak driven by James Gelat, each won a three mile heat, therefore, tying for first place. As Mr. Cracraft's total time was one second better than Mr. Gelat's, first place went to Modernistic Rhythm. In Division III of this class, West Palm Beach Baby driven by Dick Upsall took both three mile heat, therefore, tying for first place. As Mr. in second place. The best heat speed in Class D was 38.24 miles per hour.

Among the outboards, the greatest interest centered in the race for the Colonel E. H. R. Green Trophy which consisted of two heats of 4½ miles each. This race was only open to Division II drivers with stock motors and unlimited piston displacement. Flash, driven by Commodore H. Ross Maddocks of Cambridge, Massachusetts, driving a Ludington boat powered with a Johnson Class D motor took both heats in a rather easy fashion, his best heat speed being 36.15 miles per hour. Albert Nagell of Drexel Park, Pennsylvania, also driving a Johnson powered Ludington hull, finished in second place and James Gelat of Miami Beach driving Silver Streak finished in third position. Altogether 21 Division II drivers entered for the Colonel Green Trophy race.

In the runabout field, for those boats powered with 55 horse power motors, Paul Prigg of Miami, Florida, finished first in both 4½ mile heats with a speed of 25.91 miles per hour. In the 125 horse power runabout class, C. S. Harrington of Miami Beach was first and C. T. Ludington second, with the winner showing a speed of 29.87 m.p.h.

In the 200 horse power runabout class, a Sea Lyon owned and driven by Jack Rutherford of New York, outdistanced all competitors in both heats winning at a speed of 35.32 m.p.h. Jones of Miami Beach finished in second place and Miss Elizabeth II owned and driven by Roger Firestone was third.

In the 250 horse power runabout race, which consisted of one heat of 4½ miles, a Chriscraft owned by H. A. Mendelson finished in first place at a speed of 39.09 miles per hour. Another Chriscraft driven by C. Perry finished in second place.

In the 151 limited hydroplane race of three heats of 4½ miles each, Chris Ripp's Meadowmere II finished in first position in all three heats. Bayhead II also owned by Mr. Ripp was second in the first and second heats, but was disabled and failed to finish in the third heat. Elmer Johnson's Sparrow II, more through her consistent running in all three heats than by her speed took second place in the series. The best heat speed was 42.35 m.p.h.

In the 151 unlimited event, consisting of two heats of 4½ miles each, Buckeye II owned by Gibson Bradfield finished first in the initial heat, closely followed by Bayhead II. Miss Daytona

(*Continued on page* 114)

Advertising index will be found on 3rd last page

A Week End at MONTAUK BEACH
—and You Will Want to Stay All Summer

America's Finest Recreational Center

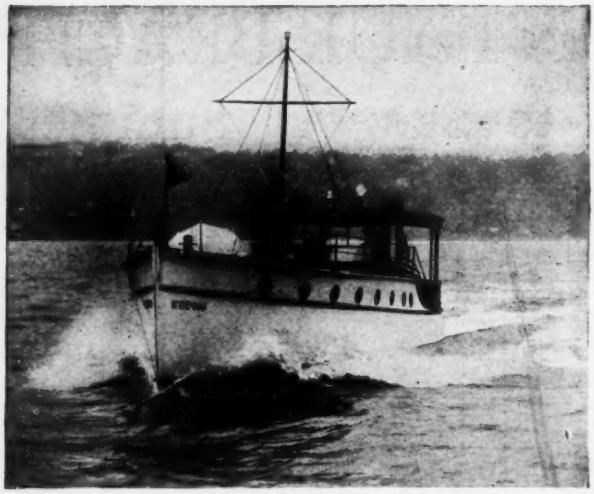
SPEND one week-end at Montauk Beach, 125 miles out on the Atlantic Ocean, and you will become enamored of its lavish beauty, its rolling country studded with intriguing golf courses, fast polo fields, tennis courts, bridle paths, beautiful beaches and other unmatched facilities for indulging in your favorite summertime sport. There's yachting on the Sound, and a million-dollar land-locked yacht basin in Lake Montauk. Off shore fishing where giant tuna, broadbill and marlin swordfish are abundant. In fact, every attraction to satisfy your sporting blood.

Come to Montauk Beach! Bring your play togs! Stay all summer. Live at Montauk Manor, a fire-proof hotel with every modern convenience at your command. Two hundred large, light and airy rooms with baths. Excellent cuisine. Make your reservation early.

Express train service on Long Island Railroad and Boulevard Highways from New York.

MONTAUK BEACH

MONTAUK BEACH DEVELOPMENT CORP., MONTAUK, N. Y. . . . . ON LONG ISLAND'S SLENDER TIP



Some Lucky Family Will Have a Wonderful Summer In This Custom-Built

LONG ISLAND FORTY

...Ready for Delivery NOW!

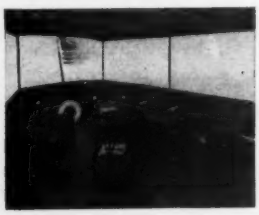
Here's a roomy, seaworthy, beautiful floating home . . . small enough to be handled by one man . . . plenty of room for six and crew . . . stateroom for two . . . main cabin with berths for four . . . single berth for "paid hand" . . . every berth a restful, sleep-provoking box spring . . . roomy lockers for shore-going clothes . . . galley with every convenience for satisfying sea-going appetites . . . interior decorations that strike a new note in color harmony.

A whale of an after deck, big enough for dancing and dining . . . wide forward deck for just loafing . . . both decks guarded by stout rails . . . and when you leave the wheel to go forward, you walk like a man, not climb like an acrobat! Buda 6-cylinder, 115 horse engine gives 12 real miles an hour.

And . . . a pleasant surprise . . . this strictly custom-built cruiser is priced at only $14,500 . . . less than most "production" builders ask . . . you can run her all season at surprisingly low cost.

Note . . . a two-cabin model can be provided for those who want it. Ask for details.

Sleep aboard the Forty as comfortably as you sleep at home. Here's the main cabin, for four; and, forward, the double stateroom . . . every berth a box spring.



For deck space like this, look to at least a 55-footer of any other design. Here's room for lots of full-sized deck chairs; the dinner table; dancing.

Good boats will be scarce this season . . . you know how it was last year . . . write to-day for descriptive folder MBG, or come out to "Port Jeff" and see an actual Long Island Forty.

LONG ISLAND SHIPYARD, Inc.

Port Jefferson, N. Y.

Telephone Port Jefferson 81

AMONG FOREST CLAD ISLANDS

(*Continued from page 37*)

when these gates are to make their appearance no one seems to have any precise information.

After parading boat and baggage on a ten ton truck down Main Street of International Falls, we re-embarked about noon at the dock below the dam and started our long journey down the Rainy River. A sudden change of scenery surprised us. The wilderness of forest-clad islands and rocky shores which we had just left was replaced by a broad and tranquil river, winding its way leisurely through a level farming country. To our eyes accustomed as they were to the rugged Rainy Lake shore line, the sloping banks of the river looked as smooth and green as the fairways of a golf course, and the sight of cattle wading in the shallow water was not unpleasant after two days of canned milk. Before each farm house the ruins of a pier ran out from the shore, relics of the days when every farmer was dependent upon the river boats for the transportation of his supplies and produce.

After traveling forty miles downstream, we came to the Manitou Rapids, where the river rushes through a narrow passage not more than sixty feet wide. Keeping the motor running to insure better control of the boat, I steered into mid-stream. We flew around a bend in the river with appalling speed and slowed down a few seconds later in the quiet water beyond. In retrospect, the Manitou Rapids seemed easy enough, but this did not prevent me from beaching the boat five miles further on to survey the Long Sault Rapids before descending them. They were longer and more spectacular than the Manitou, showing white water and spray for more than a hundred yards. I had some doubts about rocks beneath those foamy white crests, but comforted myself with the assurance that if the water was deep enough for cruisers and steamboats, it must certainly be deep enough for a boat as small as ours. The problem was to pick the channel, which, I concluded, would be where the surface looked the swiftest. Accordingly I started the motor again and headed into the boiling center of the rapids. We plunged breathlessly through a number of white crests, half expecting a rock beneath each one, but always coming through unscathed. We were approaching smooth water, and I was already beginning to pat myself on the back for the successful navigation of another rapids that I knew nothing about, when Doc gave a warning cry from the bow. I expected the worst and tried to shut off the motor, bracing myself at the same instant for the impending shock. But instead of crashing into a submerged reef, we slid over a floating log which struck the propeller and broke a sheer pin. As I learned afterwards, the water in both the Long Sault and the Manitou Rapids is deeper than it appears to be, the only great difficulty being to make headway upstream against the swift current. Pilots of the ponderous river steamers used to winch their craft through both rapids with shore lines manned by Indians.

Camping on the grassy banks of the Rainy River that night, we started out the next day to travel the remaining fifty miles downstream to Lake of the Woods. At Beaudette, an American town twenty miles from the mouth of the river, we stopped to fill our tanks with gas and our ears with information about Lake of the Woods. An obliging ferryman penciled what he called the Inside Channel on our map, advising us not to attempt the forty-mile stretch of open water known as the Big Traverse. Leaving Beaudette about ten o'clock, optimistically confident that our ten gallons of gasoline would get us to Kenora, the next port, 125 miles away, we caught our first glimpse of Lake of the Woods, an endless expanse of rolling blue water, as we neared the Sable Island lighthouse at the mouth of the Rainy River. Acting upon the ferryman's advice, we did not venture out upon the Big Traverse but turned in behind the low sandy shores of Sable Island.

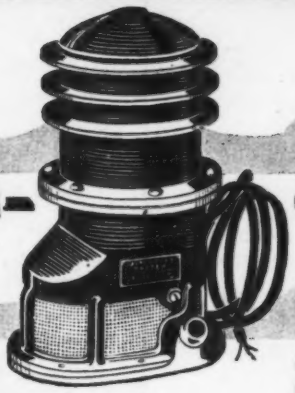
Following a channel well-marked with buoys, we made good time to Windy Point, where we could again look out across the open water. Fortunately the wind was not from the west across the sixty-mile stretch that we had avoided by a more easterly course, and we soon passed the lighthouse near Village Island, skirting the sheltered shore of Bigsby Island in a northwesterly direction. It was no difficult task to find our way through the large islands in the southern part of Lake of the Woods to the Tug Channel, leading to the northern part of the lake. About seven o'clock in the evening as we were approaching the mouth of the Tug Channel, we discovered that we had only three gallons of gasoline left to carry us the remaining forty-five miles. Doc saw a fish boat rounding the point of a distant island not long afterwards, so we gave chase, following it to a camp in a near-by bay where we bought enough gas to insure our reaching Kenora on the morrow.

The sun was sinking behind the islands in a glorious blaze of color as we beached our boat half an hour later in a sandy cove

(*Continued on page 86*)

Advertising index will be found on 3rd last page

SAFETY

PROTECTION FROM—  —LEAKAGE

OBERDORFER AUTOMATIC ELECTRIC BILGE PUMP

Patents Applied For

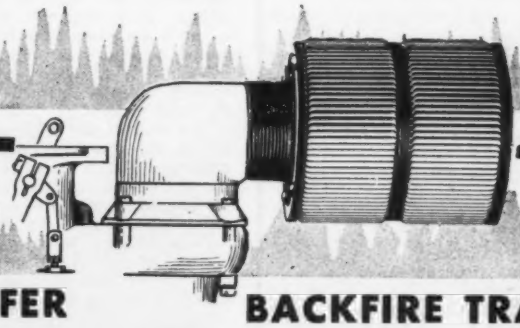
GETTING away from care and worry is one of the greatest pleasures of motor boating. Your peace of mind is made complete when you know your boat is protected against every hazard.

One outstanding hazard is the danger of unexpected leaks. Protect your boat against this by installing an automatic watchman that never sleeps—the OBERDORFER ELECTRIC BILGE PUMP. A small switch gives you automatic or constant action as you choose. It operates from your storage battery and consumes very little current. Easy to install, too. The *"Master"* comes in 6, 12 and 32 volt units. The *Improved Model B,"* costing less, in 6 and 12 volts.

Another hazard to be considered is the danger of fire due to backfiring of your motor. The Oberdorfer Backfire Trap is a safety device, approved by Underwriters Laboratories, that traps and kills the flame of the most terrific backfire possible. They are now available for installing on any carburetor.

Oberdorfer Bronze Gear Circulating Pumps, Oberdorfer Hand Pumps and Oberdorfer Motor Driven Gear and Centrifugal Pumps add safety, convenience and new efficiency to your boat.

At your marine supply dealer's. Complete data gladly sent on request.

PROTECTION FROM—  —FIRE

OBERDORFER BACKFIRE TRAP

M. L. OBERDORFER BRASS CO. *Makers of Pumps Since* 1875 2200 Thompson Rd., Syracuse, N. Y.

Oberdorfer Pumps

Come to Newport

for

THE FOURTH ANNUAL

MOTOR BOAT REGATTA

July 25 and 26

And also witness

America's Yacht Cup Race Trials

Best race course

Best boat facilities in the East!

ENTER YOUR BOAT—
BRING YOUR FRIENDS

Bigger, better;

more fun than last year!

SEND YOUR ENTRY

Narragansett Bay Regatta Assn., Inc.

NEWPORT, R. I.

AMONG FOREST CLAD ISLANDS

(Continued from page 84)

near the mouth of the Tug Channel. I pointed out to Doc within fifty feet of the spot where we drew up the boat the tracks of partridge, mink, deer, and wolf. In searching for a campsite, we saw many signs of deer and moose, and late that night we awoke to find a small black bear nosing at the provision box outside our tent. We were cruising in the heart of the game country.

We wandered the following morning in a general northerly direction through a maze of small and beautiful islands. Our map of this northern part of Lake of the Woods looked as if it had been sprinkled with pepper, so thickly scattered were these little islands, and yet it left us entirely unprepared for what we found. On the water one lacks the perspective of the map, and instead of being able to see far ahead and pick the straightest possible course among scattered islands, we found ourselves continually hemmed in by an apparently unbroken wall of forest. The openings through which we had just emerged seemed to close up behind us, and the passages ahead would appear as if by magic in what seemed a solid shore line. Once we laid aside our map and compass to pursue a deer swimming from island to island; again we were led too far east by following a fishing boat in the direction of Whitefish Narrows. But in spite of straying several times from our course, early in the afternoon we began to pass many fine summer homes among the islands, and entering the Devil's Gap with its grinning stone face, knew that we were not far from Kenora. This little Canadian town has more motor-boats than automobiles and more boatworks than garages. We saw on arriving many fine cruisers and smaller craft moored along the waterfront.

After spending a day in Kenora and visiting Keewatin, a neighboring town which is only a few miles distant by water, we re-fuelled, re-provisioned, and headed southward for home. Because of a late start, we were still traveling at dusk, and getting slightly off our course in a fog, went many miles out of our way into Ptarmigan Bay before realizing our mistake. The next day we took a chance that we had been advised not to take, and instead of entering the Tug Channel and returning the way we had come, followed the steamboat channel to Oak Island from which we set our course almost due south across the Big Traverse. For a time we lost sight of land entirely, and Doc took the occasion to recall cheerfully what the ferryman had told us about sudden storms and steamers tossing helplessly in twenty-foot waves. But in spite of a gloomy sky and our own misgivings, we reached the mouth of the Rainy River safely about sundown, a flaming sun disappearing beneath the watery horizon astern, and the Sable Island lighthouse twinkling in the darkness ahead. Our camp that night was near the ruins of the old Hudson Bay Company's fort, Hungry Hall. I tried to even up the score with Doc for harping so inopportunely on what the ferryman had told us, by whispering to him in the darkness about the last-known case of Indian cannibalism, which happened to have occurred a generation ago on the very spot where we were camping. An appropriate name, that, Hungry Hall.

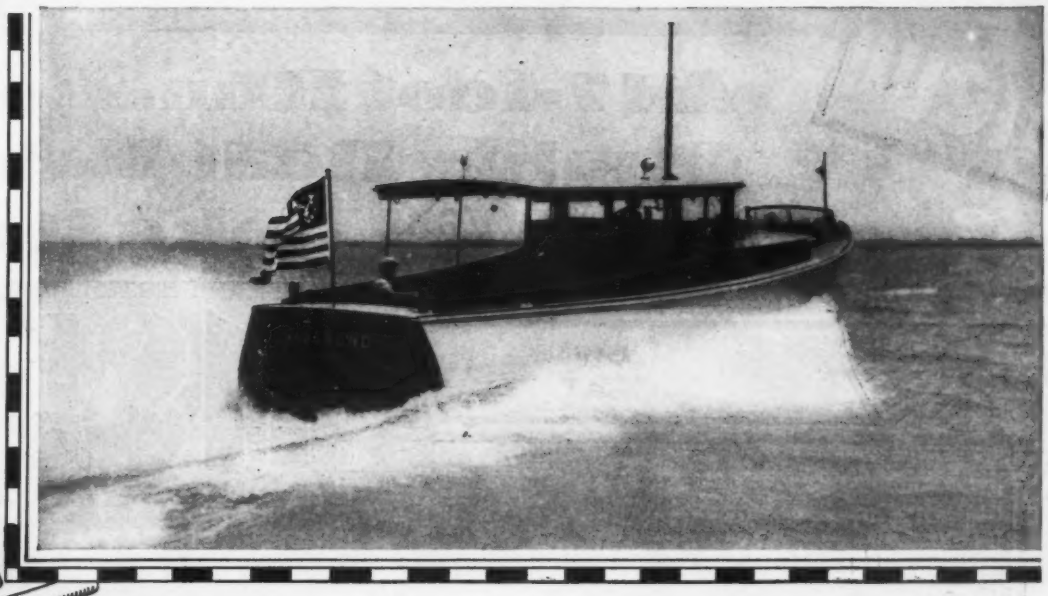
Going up the river the following day, we experienced what was perhaps the greatest thrill of the whole trip in ascending the Long Sault and the Manitou Rapids. On our way down the river we had not realized the swiftness of the current in these rapids; on our way up we did. The Long Sault we passed without great difficulty, but the Manitou's rushing water held us at a complete standstill for five minutes that seemed like hours. A crowd of enthusiastic tourists on shore dropped their fishing rods to cheer us and take snapshots. I felt greatly relieved when with motor wide open we crawled slowly out of the swift current.

The rest of our trip was an uneventful procession of sleepy farms and green meadows bordering the winding river. After passing again, a la carte, the dam at International Falls, we reached our Rainy Lake island and entered the little harbor that we had left just ten days before. His vacation at an end, Doc entrained the next day for home, thoroughly qualified and incurably inclined to rave about the twenty thousand islands of Rainy Lake and Lake of the Woods.

DIESEL ENGINES POPULAR

About two and a half years ago in order to meet the growing demand for small light weight diesel engines, the Standard Motor Construction Company of Jersey City placed on the market a six-inch bore and eight-inch stroke full diesel engine. Since that time about fifty of these engines have been installed in many different kinds of boats and have proved so satisfactory that the demand for them has warranted tooling up for running these engines through in quantity. In a short time the Standard Company will announce to the public another line of even smaller bore and stroke. Developments have been completed and several of these new engines are already in process of construction.

Advertising index will be found on 3rd last page



IT'S ONLY A STEP FROM YOUR

CITY HOME TO THE SEA-FREE COMFORTS OF YOUR STURDY

MATTHEWS CRUISER

"38" MATTHEWS "46"

Every Matthews has an impressive amount of cabin space—with extra large and comfortable berths, excellent toilet facilities and a well equipped galley.

Motor boating has reached new stages of perfection in the fine, staunch designs provided by Matthews. You can step aboard your new Matthews "38" or "46"... stow the necessities for your cruise... fill the ice chest and stock the galley... unlock your ignition... touch your foot to the starter pedal... lay a course for a week-end trip, or your summer cruise... then revel in your new found joys. Night lures you to your deep spring berths. Morning greets you with clean, invigorating freshness—sunlight glinting through the cabin windows arouses you to another day... A day of keen promise and new adventure. A brief dip, enticing odors from the galley, a delicious breakfast on deck, and then off on another leg of the voyage. Ten handsome Matthews models in 38 and 46 foot sizes with twenty-four individual arrangements. $6,850 and up afloat Port Clinton. Write for illustrated literature on Matthews Cruisers today.

THE MATTHEWS COMPANY

Designers and Builders of Boats of Distinction... Since 1890

Port Clinton Ohio

SALES AND SERVICE—The Barret Co., 112 Second St., Louisville; Belle Isle Boat & Engine Co., 8777 E. Jefferson Ave., Detroit; Boardman & Flower, 1740 Van Ness Ave., San Francisco; Bruns, Kimball & Co., Cor. 5th Ave. and 15th St., New York City; Lake Erie Yacht Brokerage Corporation, 1365 W. 17th St., Cleveland; Wm. V. Masson, 1619 Baltimore Trust Bldg., Baltimore; Matthews Florida Branch, 17 McAllister Arcade, Miami; Mississippi Valley Yacht Sales, Times Bldg., Alton, Ill.; Walter H. Moreton Corporation, 1045 Commonwealth Ave., Boston; J. A. Scarlett, 436 E. 2nd St., Cincinnati; The Sebo Boat Co., 3206 E. Main St., Houston; Robert V. Statts, 675 S. Park View, Los Angeles.

new!

A 17-foot Runabout Quality Boat Value that Will Make It an

$1185
F.O.B. FACTORY
DEFERRED PAYMENTS
IF DESIRED

A Few of Its Many Quality Features

Beam—5′ 5″.

Freeboard—29″.

Power—40 h. p., 4-cylinder marine motor with electric starter, generator and storage battery.

Speed—25 m. p. h.

Construction—African mahogany, over white oak keel, chines and frames.

Upholstery—Loose cushion type in smart red shade, green optional.

Finish—4 coat varnish finish; seamed forward deck; heavily nickeled fittings.

Equipment—Most complete of any craft within several hundred dollars of its price. Includes instrument board with oil gauge, ammeter, starter button, rubber mounted windshield, combination flag and light fixtures, burgee and ensign, stern light, anchor, anchor line, mooring lines and tool kit.

The Newest Member of America's Popular Motor Boat Fleet

Advertising index will be found on 3rd last page

by Dee Wite! The Greatest in the World—at a Price Instantaneous Leader!

Again Dee Wite electrifies the boating world with a boat building achievement of extraordinary interest to those who want super boat value! Not just *another* boat is this new 17-foot Dee Wite runabout, but a totally new type of boat—finer, faster, more seaworthy and more dependable than ever before hoped for at such reasonable price.

The entire boating world is amazed and astounded at this newest Dee Wite accomplishment. Astounded at the quality of its African mahogany and tough, white oak construction. Astounded at its full-size comfort, previously unthought of in a boat of 17-foot length. Astounded at the beauty of its finish and the deep, restful luxury of its loose cushion cockpits. Thrilled and breathless at its brilliant performance ability—its quick acceleration and its soft, vibrationless swiftness at top speed.

Only thousands of dollars spent in months of experimentation and testing, coupled with the economic advantages of Dee Wite's tremendous production, could make such a boat value possible. See it at once—at your nearest Dee Wite dealer—and place your order promptly if you want to make sure of early delivery. Even Dee Wite's enormous production facilities will be taxed to the utmost to meet the demand for this super boat.

11 Other Beautiful Models Await Your Selection in the Popular Dee Wite Fleet

Only by giving super value has Dee Wite been able to attain national acceptance in such comparatively short time.

First to sense the almost unlimited demand for quality boats at popular prices, Dee Wite has from the very beginning enjoyed sensational sales success.

Each of the other 11 models which comprise the Dee Wite fleet is as outstanding at its price as the remarkable new 17-foot model announced above. Each is quality made, from stem to stern, and finished and equipped in the most advanced manner.

No matter what your boating needs may be—no matter what price you care to pay—there is a Dee Wite to meet your personal inclinations. There are three hull lengths—16, 17 and 19 feet. There are speeds from 20 to 40 m. p. h. There is a model for outboard power—the first model to come from Dee Wite designing boards and still a wonderful seller for sportsmen, fishermen and general family use. At the top of the price range, yet many hundreds of dollars below the price of other similar craft, is a sumptuous yacht dispatch boat or sedan—the last word in custom built elegance.

Representative models of this new fleet of super boats are on display at your dealer's showroom. See them today! Illustrated catalog will be mailed promptly upon request.

DWIGHT LUMBER COMPANY
Boat Division, Dept. 55 **Detroit, Michigan**

Any Dee Wite Boat May be Purchased on Convenient Deferred Payments if Desired

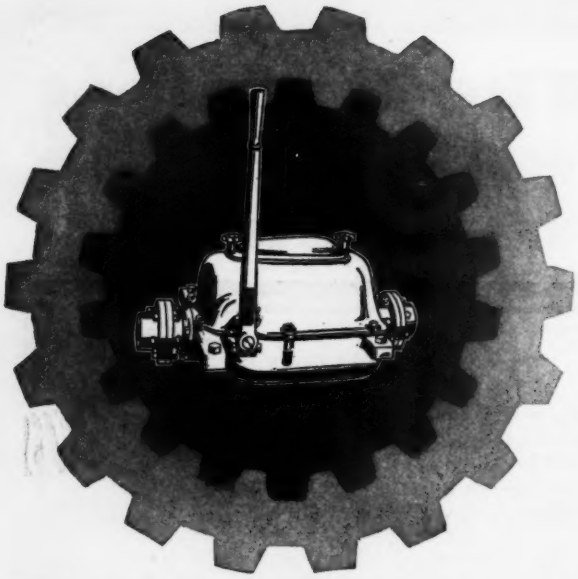
Dwight Lumber Company, Boat Division, Dept. 55, Detroit, Michigan.

Gentlemen: Please send me, without cost or obligation, a copy of your new, illustrated Dee Wite catalog.

Name _____

Address _____

City _____ *State* _____



Old Enough to Vote But Still in Harness

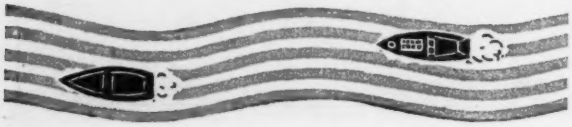
WE don't have to speak vaguely of "Long Time Service". We can speak in *actual years* from actual experience. Only the other day a Paragon came to our attention with a record of 21 years of continuous service.

The 90 Line
PARAGON
REVERSE GEARS

To you who have enjoyed faithful service from the same Paragon, for 10-15-20 odd years—drop us a line. We are interested in your story.

"There are no Trick Parts to a Paragon"

PARAGON GEAR WORKS
604 Cushman Street, Taunton, Mass.



BUILDING AGAINST THE WAVES

(*Continued from page* 51)

is a thoroughly attractive visual factor as well. The combined step and return face, used in one structure in California, is also an asset in the way of architectural enhancement of property. In several places, Tampa, notably, the simple straight sloped wall has been capped by a decorative railing.

One of the most attractive drives in the country is Ocean Boulevard, which extends for about 50 miles along the Gulf Coast through Jackson, Harrison and Hancock counties in Mississippi. Not the least of the drive's features is the seawall which protects it, and whether you realize it or not, your automobile pays for the seawall as you travel over the boulevard.

This particular case provides an interesting illustration of at least one method of seawall financing. Prior to the war, the Gulf Coast bordering on the extreme Mississippi counties was subject to the constant ravages and erosions of storms. Property ownership wasn't inclined to be much fun. The state had no authority to build a seawall to protect private interests, but by a special legislative act authority was given to build a wall to protect Ocean Boulevard. The war over, a few storms convinced the state that it did need such a wall, whereupon Mississippi started out to construct 39 miles and more of wall outside of its boulevard. Some of the wall is step-faced, especially out of Biloxi, and other parts are featured by other types of facing. The major portion was finished in 1927, although additional parts are under construction. The state, be it noted, floated a bond issue to protect its highways, but by virtue of an additional 2-cent tax on gasoline in the three counties, motorists paid for the retirement of the bonds. Taken in the aggregate, the average driver contributes about 8 cents to the cause for his scenic ride over the 50 miles of boulevard. Property, needless to say, has not suffered from decreased valuation, but, on the other hand, has gained appreciably in value. Rapid development of this locality as a winter resort has followed and northern visitors annually contribute their share to the improvements.

There are a number of states so situated today that water highways between residential areas and business districts are attracting many new aquatic commuters. To these, and to hundreds already in the field and to come, the problem of off-shore protection is of interest. The confirmed yachtsman cannot allow his sport to become too seasonal, and to the commuter, with his small fast craft, an all-weather water lane is becoming quite as essential as the all-year highway is to the motorist.

Newest and smallest of the Chris-Craft fleet—the 17-foot runabout, recently announced

A NEW 17-FOOTER

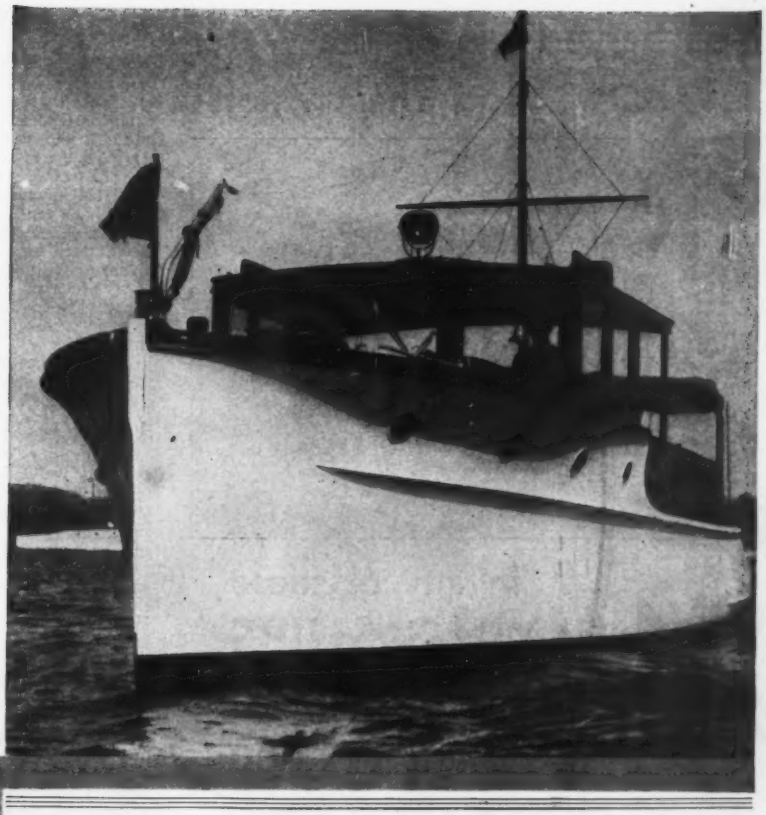
Back in 1928 when Chris Smith and Sons Company began to offer the public a complete market coverage in different sized motor boats, they realized that this would necessitate their going into bigger boats than the original 26-foot Chris-Craft, and smaller boats as well. And for the past two years their efforts have been largely devoted toward perfecting the larger boats. During that time some experimentation has gone on with smaller hulls and motors. They realized all along that eventually to complete their market coverage, they would have to produce a boat, and a real motor boat at that, under twenty feet in length.

Last Fall the 20-footer which took the boating world by storm was formally announced. Even as they were bringing out this new Chris-Craft plans and designs for an even smaller boat were under way.

It was impossible to complete this miniature Chris-Craft last Fall, and offer it to the public at the New York Motor Boat Show because of certain minor features which had to be overcome in order to make the boat a true Chris-Craft. They are, however, now ready to announce this boat to the public. It is a true Chris-Craft in every sense of the word, and accommodates six passengers comfortably. Its miniature power plant drives the boat at an easy 25 miles an hour, and they believe that they have accomplished the one thing which they have been striving for in this small boat, namely, dryness.

Advertising index will be found on 3rd last page

Came the Dawn



SHE looks trim at a distance . . . so attractive and desirable . . . you wonder if her approach will destroy another beautiful illusion. Sailormen do feel that way about boats . . . too.

Then gracefully . . . smoothly gliding through the water, she draws near. Every lovely line is enhanced as perfect detail after detail becomes visible. Correct mouldings, perfect joiner work, mahogany that is mahogany, beautifully finished, heavy bronze hardware . . . all are in harmony.

And below is in keeping with the above-decks. Both the staterooms and crew quarters are airy and roomy. Each has its own toilet facilities and ample storage space. All is for living aboard in comfortable luxury. The huge deck-filling ice-box, the complete galley with a shore sized gas stove, running water in every basin add to material comforts.

The coming of the Dawn is no disillusionment.

DAWN BOAT CORPORATION
CLASON POINT ✦ NEW YORK CITY
Established 1906 **Tel. Westchester 7000**

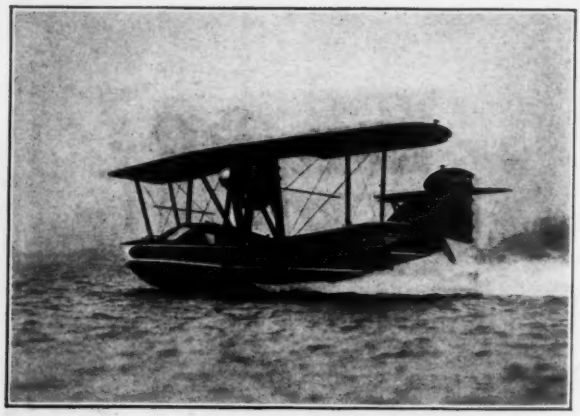
DAWN
TWIN-SCREW CRUISERS

DAWN 45-footer
Powered by twin Lathrops,
140 H. P., Speed 12 to 14 M. P. H.
$16,900

DAWN 48-footer Express
Powered by twin Sterling Petrels, 5½" x 6"
300 H. P., Speed 18 to 20 M. P. H.
$23,800

afloat at Clason Point

You Serve Them on the Water . . . NOW Send Them Aloft!



4 . . . in any of these FLYING SHIPS . . . $4,890 to $23,000

Ireland . . . Pacemaker of Amphibion design . . . offers you motor boat dealers a chance to build a substantial, profitable aircraft business . . . right in your own big, prosperous yachting field!

Here, at last, are ships that hurdle the barrier of cost which has kept thousands from the thrill of flight . . . a 2-place Flying Boat at only $4,890; a Flying Boat that cruises 75 miles an hour on less gas and oil than a 40-mile water-craft! . . . a 2-place Amphibion at $5,550; lowest-priced Amphibion ever produced . . . a new 4-place Amphibion at $18,000 . . . and the famous Ireland Amphibion at a new low price, $23,000!

Yachtsmen know what they want . . . at these prices, they'll buy Ireland Amphibions . . . and Ireland is ready with every cooperation to help you organize for aircraft sales.

If you are an established dealer in water-craft . . . if you are of substantial financial standing . . . if you can foresee the tremendous future of aviation . . . we want you with us. Write today for full information concerning the Ireland Franchise. Ireland Aircraft, Inc., Garden City, Long Island, New York.

IRELAND AMPHIBIONS

A FLYING DIESEL ENGINE

(*Continued from page* 53)

overcome by the use of short fuel tubes is the elimination of air traps which imprison air and cause missing. It has been estimated that the impact blow on the piston head during the explosion exerts a force of about ten tons which must be transmitted to the crank shaft and which results in its rotation. These terrific impacts tend to compress the walls of the crankcase and the stresses are distributed by means of the alloy steel hoops previously mentioned. These hoops are squeezing the walls so hard that even the large forces generated are transferred to the far side of the cylinder where they act in compression. Counterweights are further secured to the crankshaft, and held there in a neutral position by two heavy coil springs. These heavy piston blows are mainly spent in accelerating the crankshaft. It yields slightly under the blow reducing the stresses in the connecting rod and crankshaft as compared to what they would be if it did not yield.

The fact that only one valve per cylinder is used, also reduces mechanical complications and weight. The entire volume of entering air sweeps by this single valve tending to cool it. In fact, by this means it runs much cooler than would a single exhaust valve. Tests have shown that the valves are in excellent condition after 500 hours of operation. The spring mechanism to close the valve is also unique in that it consists of a nest of twelve small coil springs. The large number is used because the stresses in the light coils are less than would be the case in a single heavy spring. There is also no likelihood of all of the springs synchronizing to produce a valve shimmy. One or more springs may fail without interfering with the operation of the valve. The valves are actuated by a four lobe cam; another similar cam operates the fuel injection pumps. These two are integral with an internal gear mounted on the crankshaft and driven at one-eighth crankshaft speed. In both cases all four lobes in turn, operate all nine valves or all nine pumps.

The pump operating mechanism is actuated by rollers and levers and push rods. The stroke of these is so arranged that it may be varied and in this way regulate the speed of the engine. When the control lever is pulled back beyond its normal idling or closed position, the pump strokes practically stop and the engine stops. Closing the air-ports by shutter valves has helped the idling of the engine since it then takes in warmer air from the exhaust pipe. By this means the engine will run smoothly at 250 revolutions.

The engine is rated conservatively at 225 horsepower but has an overload capacity of about 20 per cent. Under ordinary conditions there is an excess of air compressed within the cylinder and when the full power reserve is required a slightly longer fuel pump stroke supplies sufficient additional fuel to complete the burning of all the air. At this point the fuel economy is not quite so good but this is of less importance since it is only rarely that the full reserve power is called on.

A pair of Universal Superfour marine motors with reduction gears powers this Spanish sardine fisherman

AMERICAN MOTORS IN THE SPANISH FISHING FLEET

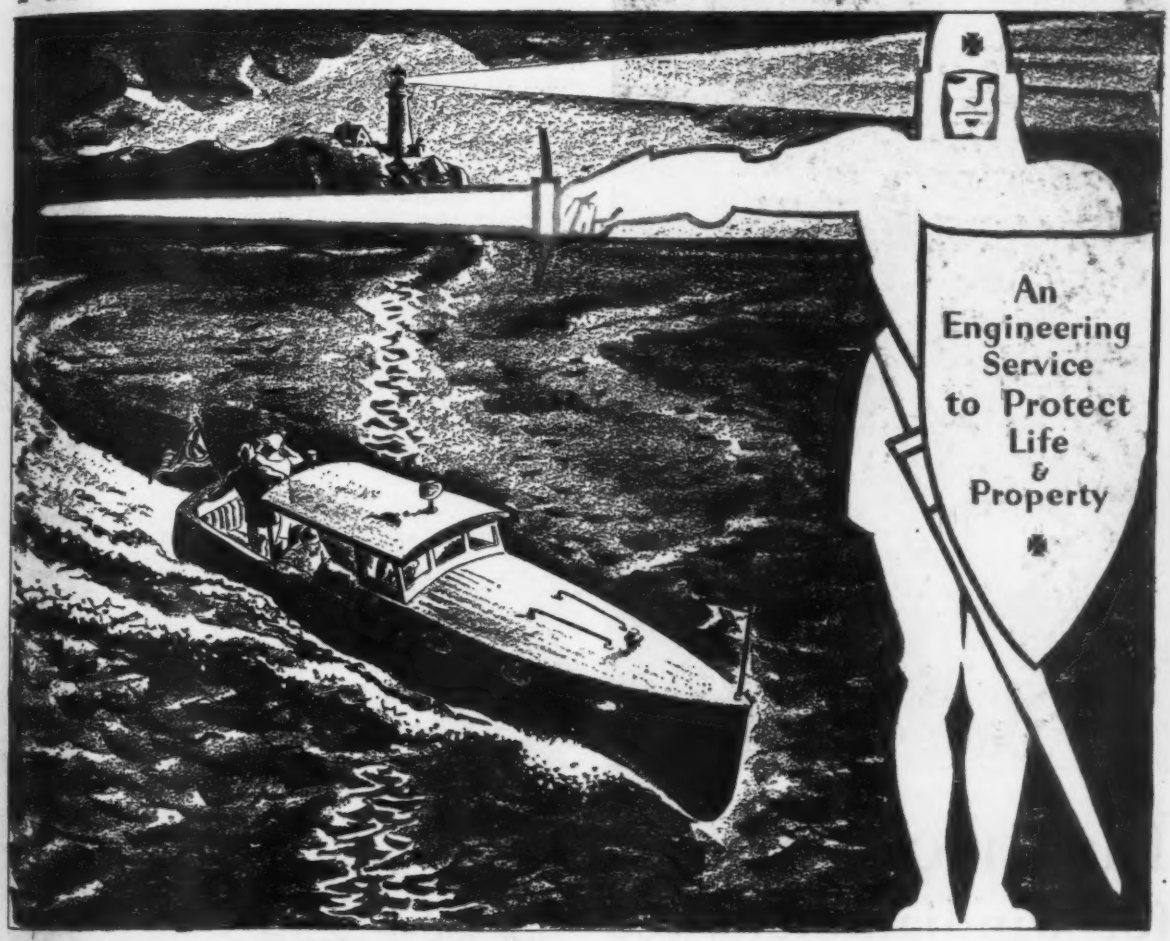
The sardine fisherman of Northern Spain, operating on the Bay of Biscay, requires not only reliable marine power, but speed and economy of operation. Before buying, the Spanish fisherman insists on an actual test to illustrate reliability and other factors essential to profits in his chosen vocation.

The above picture was taken at the end of such a test trip. This modern sardine smack is powered with two Universal Superfour marine motors with reduction gear. It is a 46-footer, 9-foot breadth, with a draft of 6 feet. The propellers are 20x18.

The test trip extended from Bilbao to Gijon, both port cities on the Bay of Biscay, a distance of 124 miles. Under normal conditions the trip was made in 12½ hours with a gasoline consumption of 3.17 gallons per hour.

Advertising index will be found on 3rd last page

FIRE — AN INCIDENT OR A DISASTER ?



No hose can reach 5 miles!

When a boat casts off from its mooring, it's "on its own"—an independent unit which has to be self-reliant—ready for any emergency!

Before you start, be sure you're safe! Equip your boat with the ALFITE System of protection against Fire! Nothing on the boat is as important as your fire-fighting equipment—and there's no protection against fire that's so positive as ALFITE.

In this system, ALFITE Gas is stored in small steel cylinders which are connected by fixed pipes to the danger points. When fire appears, a simple, quick pull of a lever, located in a safe, unthreatened part of the ship, discharges the gas. And ALFITE Gas is always death to fire!

A few seconds and the fire is over... and you can go on with your pleasure cruise.

Send for free copy of a booklet on the ALFITE method of safeguarding yachts and motor boats against fire.

AMERICAN-LA FRANCE AND FOAMITE CORPORATION, DEPT. S-18, ELMIRA, N. Y.
Offices in all principal cities

LA FRANCE AND FOAMITE PROTECTION

AN ENGINEERING SERVICE

AGAINST FIRE

Electric Light...
for windjammers, too

THE same Homelite electric light plant that's so popular with the motorboat bugs is lighting hundreds of sailboats too. The generator stows in 14"x14"x21", weighs but 110 lbs. The storage battery with 2500 watt hours will keep 40 lights burning, perc the coffee, run a fan, hoist a sail or cat your anchor. Small enough for 30-footers, big enough for 70's.

Write for details.

$275

F.O.B. Port Chester, N. Y. Including generator, battery and switchbox complete.

Generator stows in 14"x 21"x21", weighs but 110 lbs. Storage battery provides 2500 watt hour reserve capacity.

Use Homelite on board or at camp and have all the electrical comforts of home.

HOMELITE

HOMELITE CORPORATION PORT CHESTER, N. Y.

3373

BOAT PRODUCTION CAPACITY INCREASED

(*Continued from page 56*)

It remains in motion or at least in suspended position until it reaches the department where items of trim, including steering wheel, windshield and hardware fittings, are applied.

In this department the hulls are placed on special trucks to facilitate movement from one group of workmen to another and it is here they receive their motors. Skilled mechanics obtained from some of the largest and best known automobile plants in Detroit are employed on this work and tool equipment and other facilities for rapid installation of motors are in evidence at every point. The motors themselves are handled by means of an additional overhead conveyor or crane which carries the motor to the hull into which it is to go and lowers it into place with a minimum of manual effort.

The completed boat, now ready for its water test, which test each Dee-Wite receives, is placed again on the monorail system and carried directly to a launching dock at the rear of the final assembly building. At this point the boat is lowered into the Rouge River and tested thoroughly at all speeds and under every conceivable maneuvering condition to make certain that its performance is up to Dee-Wite standards. This is one of the most thrilling sights to be seen at this plant for some of the test drivers seem bound and determined to find some hidden weakness or some deficiency in performance qualities, but all to no avail.

Having passed its water test, the boat is then picked up again on the monorail and given its final cleaning and inspection preparatory to shipment. It is carried quickly then to the end of a large, newly erected shipping building where wide doors open directly to end-loading box cars. There are three tracks available for use and a fourth track is added at the side of the building to receive shipments where side-door loadings are made.

Some idea of the speed with which Dee-Wite boats are manufactured may be gained from the fact that a hull can be completely put in frame, including laying of keel, fastening of frames, transom and all battens, in one hour and fifteen minutes. All of the parts are cut in specially designed fixtures so that they are interchangeable. This facilitates assembly, and eliminates hand fitting. All of the upholstery used is manufactured in Dee-Wite's own upholstery shop. In fact, surprisingly few parts are obtained from outside manufacturers. Most of them are made in the plant under Dee-Wite supervision and inspection.

Hacker is building this 38-foot V bottom commuter for the King of Siam. Powered with a 12 cylinder 850 h.p. Packard; she will make 55 m.p.h.

MANY RUNABOUTS GO ABROAD

Worden Wood, the artist, has depicted with accuracy a background and atmosphere for the new 38-foot V-bottom 55 m.p.h. Hacker-Craft Cruiser Commuter, powered with a 12 cylinder 850 h.p. Packard low compression marine engine. The Hacker Boat Company, of Mt. Clemens, Michigan, have just received a commission from his Imperial Majesty, the King of Siam, to build this extremely smart cabin commuter.

Recently a cablegram was received from F. Ashby of Sydney, Australia, soliciting a Hacker-Craft dealership and sample boats are on the way to distant Australia. In February a similar dealership was closed with Messrs. Ignacio Coll e Hijo of Barcelona, Spain, and a 26-foot Hacker-Craft with a 225 h.p. Kermath marine engine was delivered and put to work demonstrating. Shortly thereafter a cablegram was received ordering a 38-foot Commuter, powered with twin Kermaths.

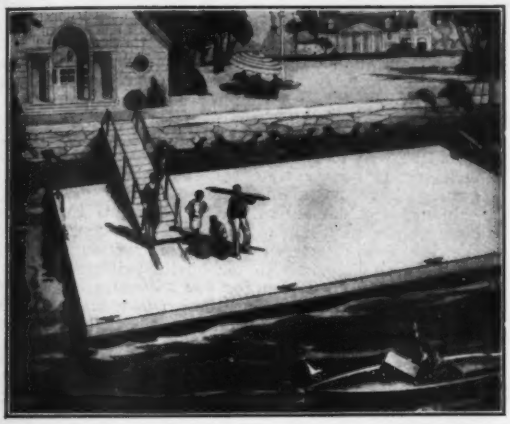
A dealership has been established with Hans Tschappat of Geneva, Switzerland, who is demonstrating a 30-footer, Kermath-equipped.

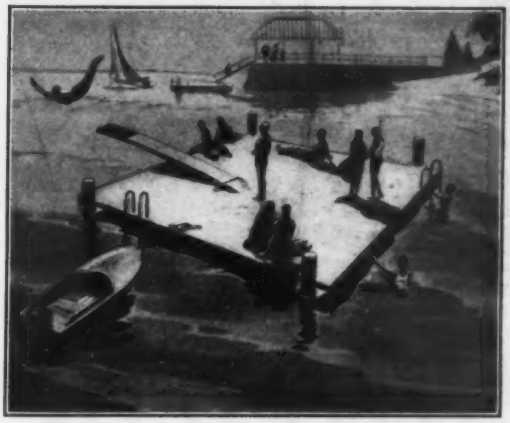
One looks upon the Netherlands as the home of seafaring boat-building people. Nevertheless, Hacker-Craft have appealed so strongly that Messrs. Gebroeders Willink of Amsterdam, Holland, have delivered to one of their clients a 30-foot Hacker-Craft, Sterling-equipped.

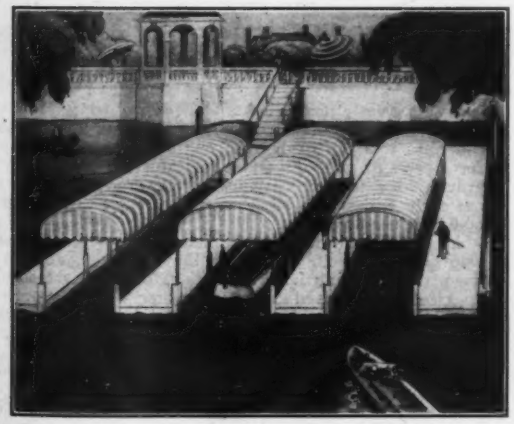
Richard M. Busse of Berlin, Germany, who made such an astounding success in the International regattas held in Germany, Italy and France, has just ordered a new 1930 Hacker-Craft.

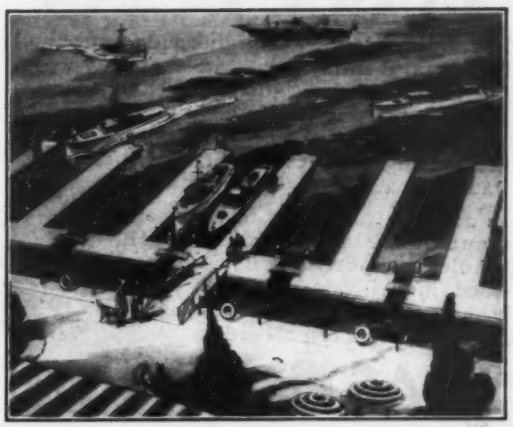
Advertising index will be found on 3rd last page

ARTISTIC STEEL FLOATS









THE problem of securing a durable yet artistic float has been solved by the engineers of the Walsh-Bugbee Company. Designed for utility, yet these floats will add a touch of color to the water front of private homes or clubs. ••• Made in several styles for all purposes, the above illustrations picture some of the uses to which these floats may be put. ••• The steel construction permits of ease in handling, shipping and storing. In fact, there are no floats made which have such a multitude of advantages combined with such real beauty. ••• We have prepared an illustrated booklet which is yours for the asking. It is hoped that the illustrations in this booklet may serve to convey to you our ability to cater to your individual requirements.

THE WALSH-BUGBEE COMPANY, INC.

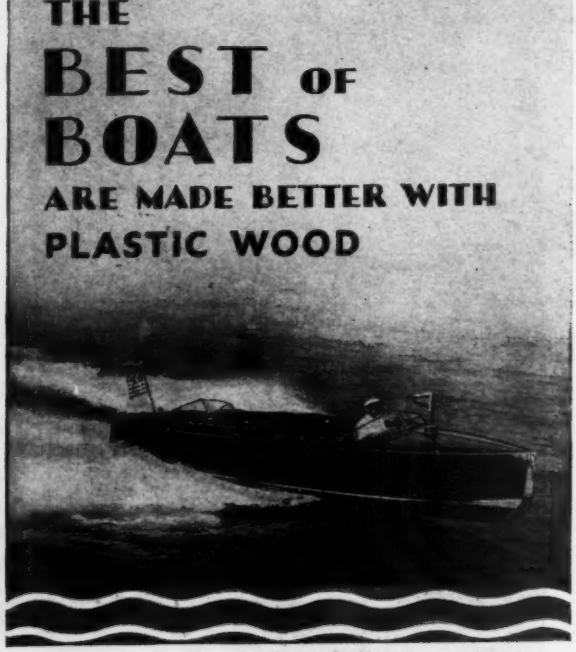
ENGINEERS ••• MANUFACTURERS ••• BUILDERS

MR. ALLAN B. WALSH, *President and Sales Manager*

4 WEST 56TH STREET, NEW YORK CITY

Telephone: Circle 4653

THE
BEST OF
BOATS
ARE MADE BETTER WITH
PLASTIC WOOD



Wherever smart motor boats are seen, the Dodge stands vividly forth in its trim beauty. It has speed and staunchness—a true aristocrat of the water.

HORACE E. DODGE Boat and Plane Corp.
Manufacturers of
DODGE BOATS

For sealing around deadlights and fixtures and for strengthening joints in the body-work, Plastic Wood is regularly used on Dodge Boats. It not only holds lastingly, but can be sanded and treated to give the perfect finish that distinguishes every detail of these smart staunch boats.

In addition to its use in boat construction, Plastic Wood, which handles like putty and hardens into wood, is of invaluable aid to every boat owner for quick and permanent repairs. Keep a can aboard.

PLASTIC WOOD
Reg. U.S. Pat. Off.

At Ship Chandlers, Hardware and Paint Stores

Our Engineering Department will gladly answer any specific questions as to the adaptability or use of Plastic Wood in Boat Repair or Construction.

Send for free 24-page booklet on Plastic Wood for Boat Repair and Construction

ADDISON-LESLIE CO., 26 Bolivar St., Canton, Mass.

SIMPLE SIMON—AN EASY ONE

(*Continued from page* 61)

mast low so as to make it easier to find a suitable stick from which to make it. It is possible to get bamboo poles about 2 inches in diameter and 19 feet long in this country. One of these will make an excellent mast. The humps on the bamboo, which by the way are called nodes, can be planed off nearly flush with the rest of the pole. This does not affect the strength to any extent. The boom also can be made from spruce or bamboo. Bamboo poles are subdivided into water tight compartments, the bulkheads being the solid piece at each node. If a ⅛-inch drill is run through the pole between each node the shell is less liable to check. However checks do not seem to weaken the poles. Of course the spars will be varnished or painted whether made from spruce, bamboo, fir, or any other available wood.

Notice that the shrouds lead from a point a few feet below the top of the mast, also head stay. These will be made from ⅛-inch flexible wire. Turnbuckles will not be required, just splice a thimble in the lower end of the rigging and set up with cotton rope lanyards to the chain plates. Three hoops will be ample along the luff of the sail; either wooden or iron hoops can be used. It is good practice to use a rope strop in place of hoops, or even to lace the luff of the sail to the mast. The foot of the sail will be laced around the boom. The sail should be made from light cotton duck or drill, the area is moderate but ample for beginners. I know she will sail nicely. If possible have the sail made by a sail maker. Home made sails are not so good. All blocks, cleats, and hardware will be made from galvanized iron, and even if you are building on fresh water it pays to use galvanized iron for all the fastenings.

There is little use in laying a floor in the cockpit unless your boys plan to sleep aboard when camping out. In this case it would be well to put in removable gratings made from ⅝ by 2 inch spruce. Some water always gets into boats and so the grating should be raised off the bottom an inch or so.

In the next number of MoToR BoatinG I shall describe the construction of Simple Simon accompanying this with some sketches showing the details of construction that are likely to be the most bothering to the novice builder. In the meantime it would be a good plan for you to secure a set of blue prints of this little craft which are drawn to a scale of 1 inch to the foot. These can be had for a modest fee from the Editor, MoToR BoatinG, 959 Eighth Ave., New York, N. Y. A circular describing useful books for amateur builders with boat building hints and many other interesting small boat designs can also be had on request.

THE ULTIMATE IN FINE CRUISERS

(*Continued from page* 57)

and conveniently placed lights and reading lamps.

Two large staterooms, one for the owner and one for guests, contain a total of six berths; and are supplemented by quarters for a crew of two. As an extra feature, a small galley has been provided for the exclusive use of the crew, so the men can get out early with a full breakfast and yet not disturb the slumbers of the owner and guests.

A shower bath and three toilets are provided. Both hot and cold salt and fresh water for the bathroom, and for washing down the boat with hose connections on deck, are supplied from an electrically driven automatic water pressure system.

The galley is equipped with a four-burner gas range, having an oven and broiler in addition, supplied from gas tanks mounted on the deck.

An auxiliary lubricating system, driven from the main shaft supplies the struts and intermediate struts, together with the stuffing boxes and rudder port, with fish oil under 50 pounds pressure. This feature is designed to prevent noise and vibration. All the hardware and fastenings on the entire boat, including the rudder, shafts, propellers and struts, are specially cast and machined of Everdur, the new bronze alloy which is not affected by electrolysis, will not crystalize and which, it is claimed, has the strength of nickel-steel.

Dimensions of the boat are 50 by 12 feet 6 inches, by 3 feet 6 inches. The keel and frames are of live Connecticut oak, and the planking is of mahogany, Everdur bronze screw fastened.

"Detailed inspection of the Fleetwing Fifty will reveal an amplitude of hidden values," said Mr. Borick. "In the entire Fleet wing line of five stock models, from 28 to 55 feet, we are endeavoring to maintain the highest standards of workmanship, materials, design, and equipment; to give the pleasure seeking yachtsman a boat with all the old-time qualities combined with the modern conveniences and luxuries."

Advertising index will be found on 3rd last page

MORE POWER!! LESS WEIGHT!! LESS BULK

FOR more than 25 years NIAGARAS have been driving some of the finest and fastest pleasure boats afloat as well as some of the hardest working commercial craft.

The NIAGARA TWINS have opened up new possibilities in double installations with their compactness and exceptional power-weight ratio. A pair of 8MS TWINS give 400 H.P. with but 350 lbs. more weight than the average single 200 H. P. engine with a possible 50% more speed.

In an average 40 ft. Cruiser, 30-38 MPH may readily be obtained with a pair of these motors and with NIAGARA TWIN driven Sedan runabouts of 26 ft. 45-48 MPH is assured.

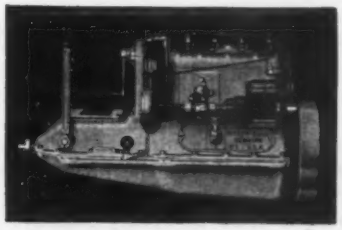
Equipped with or without Reduction Gear.

Write for free Catalog

NIAGARA MOTOR CORPORATION

DUNKIRK, N. Y.

NIAGARA "FOURS"

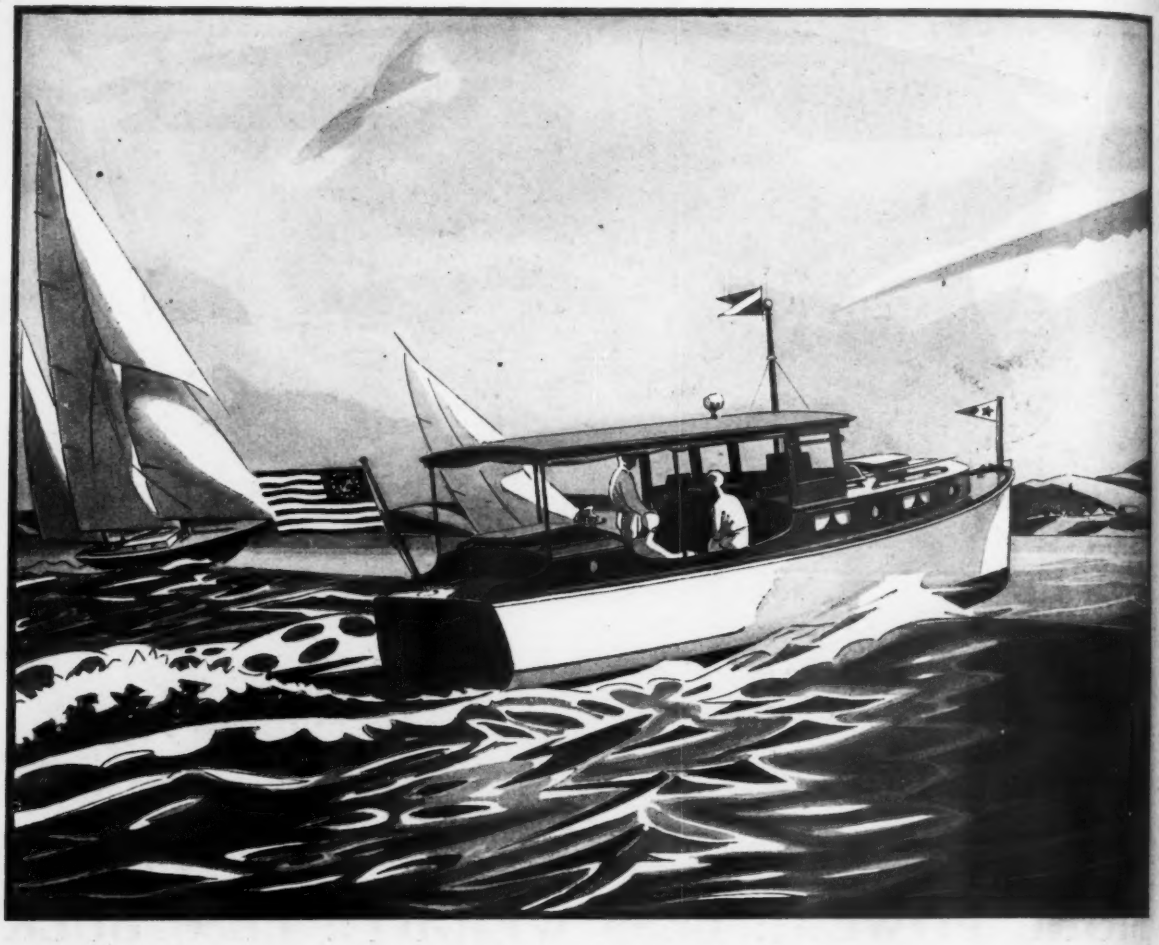


12-16 H.P. "Special"	$246-376
25-30 H.P. M. S.	$475
30-40 H.P. H. S.	$495
*60-70 H.P. H. SS.	$675

*Supercharged.

Exceptional power with compactness and light weight is available in these full equipped NIAGARA 4's. An overall length of but 36½" and weighing only 311-342 lbs.

CHICAGO—Motor Boat & Engine Service, Inc.
BOSTON—Rapp-Huskins Co., Inc.
'FRISCO—Machinery Exporters, Ltd.
ST. LOUIS—Wm. Grossman
TORONTO—J. S. Innes, Ltd.
MIAMI, FLORIDA—Henry A. Pohl
HAVANA, CUBA, PRESIDENTE ZAYAS No. 8—R. G. Abreu S. en C.
VANCOUVER, B. C., 1779 W. GEORGIA ST.—Chappell Brothers
ALBANY, N. Y., 476 CENTRAL AVE.—Gabras Boat Company



It's hard to find an excuse for not having the pleasure and health and contentment that a summer on the water will give you, when you can own the A. C. F. "30" so easily!

The "30" is a small cruiser . . . only 30 feet long. That's for economical operation and easy maneuvering. But just look at what it gives you!

A large cabin that sleeps four, and an after cabin that sleeps two . . . all in soft, comfortable berths. Full-length lockers to keep clothing spick and span; and plenty of storage space. A cockpit that is really roomy. A well-lighted and fully-ventilated galley. A thoroughly equipped toilet room.

You can go over the "30" from stem to stern at our Marine Salon. Why don't you do it soon?

a.c.f.

AMERICAN CAR AND FOUNDRY COMPANY

217 WEST 57th STREET · · · NEW YORK CITY

Advertising index will be found on 3rd last page

A.C.F. has built the "47" especially for general family use. You'll find in it all the qualities of a good boat . . . ruggedness, staunchness, seaworthiness . . . but you'll also find a unique arrangement of its interior. : : Above all, the "47" is designed to make life aboard pleasant for *every* member of your family. All of its cabins are spacious—far more so than the length of 47′ would lead you to believe. There's luxurious living comfort for six aboard. There's plenty of deck room. The bridge deck gives you a dining saloon and a lounge as well. The galley is not only extremely large, but also is fitted to satisfy any cook. The toilet room is oversized, and is equipped with every conceivable convenience.

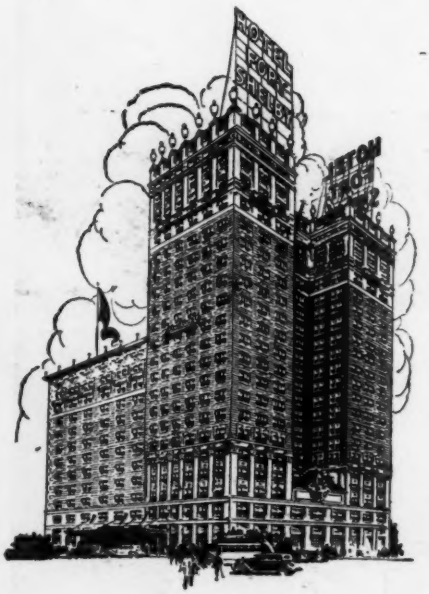
We have a "47" in our Marine Salon now. Drop in and go over her at your leisure!

AMERICAN CAR AND FOUNDRY COMPANY

a.c.f.

217 WEST 57th STREET • • NEW YORK CITY

All Downtown Detroit is Practically at the Door



Adjacent to theatrical, financial and recreational centers — yet removed from the bedlam of metropolitan activity, the Fort Shelby is advantageously located. All the comforts and services of the most modern hotel are provided here—with this addition: *an alert, congenial anticipation of your needs.* When the door of your room is closed, all is peaceful — quiet. Servidors eliminate even momentary intrusion.

Plan a schedule of amusements, wire your selections, and we'll have tickets to theaters, concerts and sporting events reserved when you arrive. Booklet and direct route to hotel supplied on request. RATES: $3 A DAY AND UP.

Main routes run either directly to or in the vicinity of this hotel. Competent attendant promptly takes care of your car. J. E. Frawley, Managing Director.

HOTEL
FORT SHELBY

LaFayette and First
DETROIT

VENTILATION FOR SMALL CRUISERS

(*Continued from page* 65)

backfire. This pipe should not have bends in it but should run straight up. This feature will depend upon the engine but the boatman can easily work out the arrangement. The pipe will pull down into the engine all the heated air near the ceiling of the compartment. This will be expelled through the exhaust.

Install a fresh air inlet from the cockpit and pipe it down to about 4 inches above the floor. If necessary to use a scoop or funnel on deck, use the same arrangement as in the toilet compartment with the pipe running down to near the floor with the opening in the floor to let water run into the bilge. This arrangement will keep this compartment fresh and although the exhaust is near the ceiling, the current of air will lift any heavy gasoline vapor and carry it out through the carbureter.

You will note that in all cases, there is not only an outlet but a fresh air intake to each compartment. The outlet is often installed but the intake rarely thought of yet proper circulation can not be attained without the necessary attention to the intake. Although it might seem that he pipes will be unsightly they can be so installed as to be unobtrusive.

L. R. K., Philadelphia, Pa.

VENTILATING IDEAS

AN old-time German bandmaster, exasperated by discord in his ranks, once declared, "Dot Adolph by first cornet—we must have should drown him out or throw him out!"

So it is with ventilation on a small cruiser. Odors and impurities must be drowned out or thrown out. And at the same time fresh air must be led or forced in, and water from rain, spray, or fog kept out.

On a boat used infrequently, such as the average cruiser, certain care is essential also at the end of a trip and in routine maintenance. There must be no oil or gasoline leaks about the engine or tanks, and no scraps or refuse about the galley. Even a dirty saucer or a forgotten bit of fruit or candy may produce unwelcome odors in a short time. A casual cleaning up does not suffice in hot or damp districts. Things must be left spic and span, and provision made for a slight natural circulation of air through small openings in ports, hatches, or hood or cowl ventilators.

Many different ventilating ideas have been tried out on the boat under way. Ozone machines, air washers and humidifiers, and even incense burners are among the elaborate and simple devices employed to mask or obliterate foul air. Fans, blowers, louvred ducts, and dampered vents are among the means used for injection of fresh air and withdrawal of stale air. As an authority on ventilation expresses it, "Air is not a chemical combination, but a mechanical mixture of gases." Hence, in this age of motors, the modern motor boat should not be lacking in equipment for maintaining good air aboard.

In fair, calm weather, with outdoor temperatures under 70, the motor boatman can usually regulate ports, hatches, or inbuilt ventilators to keep the air aboard clean and fresh. In a storm or heavy sea, reversible motor, low-voltage electric fans, installed on opposite sides of galley or engine room, may be run alternately as the wind or course changes. Fans of this type with 8 to 12-inch blades may be had, wired for 32-volt or other low-voltage circuits, at from $16 to $30 each. The 8-inch models may be used with 6-volt batteries where the service is not too steady. Such fans can move 400 to 800 cubic feet per minute and are available assembled in screened panels or frames fitted with hinged covers for the exposed side. When run as a discharge fan, there must be no open doors, ports, or hatches on the same side of the boat as the fan. Instead, they should be opposite and approximately in line with the fan. Operated as intake fans, they are useful in relieving sultry or torrid conditions of midsummer. Fans should not be run on discharge at high speeds of the boat or against high winds, as this might overheat or burn out motors.

With the trend to larger motors and capacious fuel and oil tanks, the fire insurance men are taking more interest in adequate ventilation. Their suggestions and observations are bearing fruit. For engine compartment, some boatmen are using an engine-driven blower discharging above cabin top or at rear of deck through a hooded outlet. Many methods of belt or gear-drive attachment to flywheel, auxiliary shaft, or reduction gearing are possible. This type is, of course, entirely automatic when under way. Low-voltage electric motors are available, also, as an integral part of a duct-and-ventilator assembly on the market. One model has a bottom extension for picking up bilge vapors, as well; but a ventilator is not a pump.

In the galley, the heat present makes preferable an overhead location of forced or natural ventilating means. Here discharge is more effective than intake. The motor used on fan should be cleaned thoroughly about once a month on account of inevi-

(*Continued on page* 104)

Advertising index will be found on 3rd last page

Invariably at those yacht clubs throughout the country that are noted for the social standing of their membership and the smartness of their turn-outs, you will find Kermath-powered cruisers and runabouts predominantly present.

For not only must the design of the craft, its finish and appointments be the last word in boat building, but performance must be on a par with its distinguished appearance.

So at America's leading Yacht Clubs you will find those boats that are the subject of most favorable comment, invariably Kermath powered.

The new Kermath "225," "200," and "175" Six Cylinder engines furnish that kind of outstanding performance demanded by boating enthusiasts. The 125 and 100 H. P. sixes supplying a less sensational but none-the-less tangible evidence of sturdy performance in cruisers up to sixty feet.

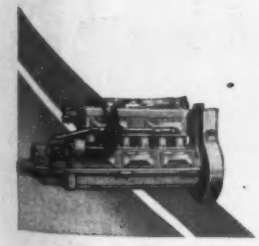
The new Kermath catalog on all 14 models will be sent on request.

4 to 225 H. P. **$295 to $2300**

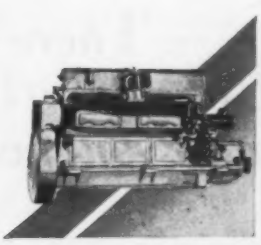
KERMATH MANUFACTURING COMPANY

5879 Commonwealth Ave., Detroit, Mich.
90 King St., W., Toronto, Ontario
New York Showrooms: 5th Ave. & 15th St.

"A KERMATH ALWAYS RUNS"



KERMATH



now 3

Superior-Quality
100% Marine

40 HP. $495

44 HP. $585

The most important announcement Universal has ever made

True Blue Jacket quality is now available in a far wider price range than anyone heretofore has considered possible.

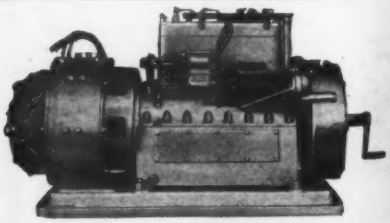
This means that the distinguishing features of Blue Jacket design and construction may now be enjoyed, at far lower prices, by those people who do not need the exceptionally complete equipment of the standard Blue Jacket. And it means that Blue Jacket quality is available in lower ranges for those who do not demand extremely high speeds.

Whichever of these three Blue Jackets you select, you are sure of getting the features with which Blue Jackets set the pace for the entire industry—a pace which has never even been approached by any other motors. You get high power at light weight, 5-bearing, dynamically balanced crankshafts, blow-out proof cylinder head fastening, perfect cooling, specially designed pistons—and a score of others.

Here—in a nutshell—are the differences, the *only* differences—between these three Blue

There's a Universal to meet your needs

Three Blue Jackets	40-44-47 HP
The Single Cylinder	6-8 HP
The Flexifour	10-15 HP
The Super Four	35-50 HP
The Sixes	77-88 HP
The Eight	115 HP

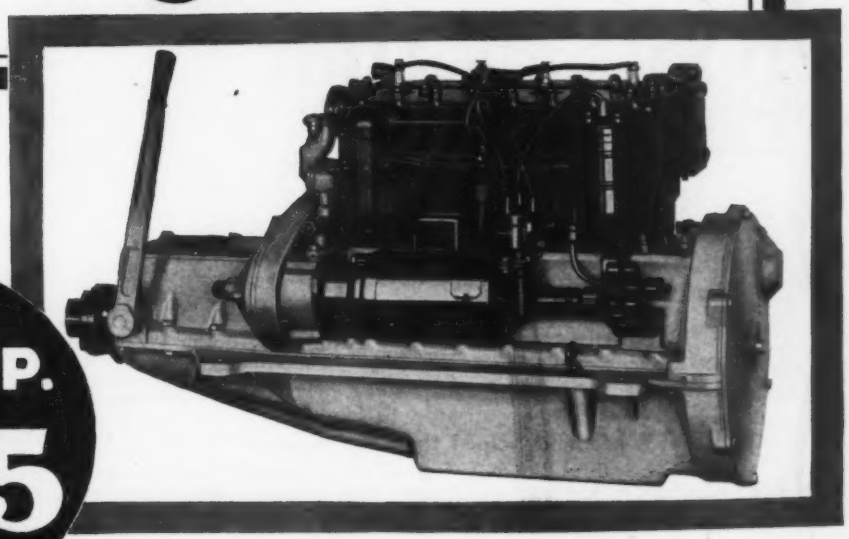


Universal

Also manufacturers of
MARINE ELECTRIC PLANTS
1½—3—4—5—7½—10—15—20 kw.

Advertising index will be found on 3rd last page

Blue Jackets



47 HP. $675

Jackets. The 47 H.P. model, selling at $675, is the Blue Jacket you already know, the motor that created such a sensation when it was first presented at the New York Show. Formerly, conservatively rated at 45 H.P., these motors have consistently and unfailingly delivered 47 H.P. Completely equipped with every convenience, even including a tachometer-equipped instrument panel.

The 44 H.P. Blue Jacket, priced at $585, is precisely the same motor except that it is slightly lower powered, and standard equipment does not include oil filter, fuel pump, instrument panel, tachometer and connection.

The 40 H.P. $495 Blue Jacket is the same motor in basic design, but is built to turn at lower speeds (3200 r.p.m. as compared with 4000 r.p.m. for the others). Alloy iron rather than aluminum is used for cylinder head and oil base, a lower speed carburetor is used, and the oil filter and cooler are eliminated. In every other respect it is the same high-quality motor as are its higher priced mates.

From this line of great Universal Blue Jackets you can now select the model best suited to your needs and purse. Write us today for full particulars.

Universal MOTOR CO.

UNIVERSAL MOTOR COMPANY
210 Harrison Street, Oshkosh, Wis.
New York Showroom: 44 Warren St.
London Showroom: 22 George St., Hanover Sq. W.

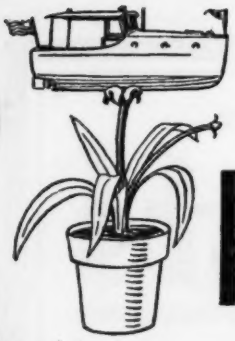
UNIVERSAL MOTOR CO.
210 Harrison St., Oshkosh, Wisconsin

Please send me your 1930 year book containing 40 pages of valuable data on the new Universal Motors and their use.

Name .....

Address .....

City ..... **State** .....



For the boats that bloom in the spring, *tra-la*

TWENTY of them helped the Graf Zeppelin girdle the globe... twenty four of them power the largest airplane in the world... the Dornier Do-X. All of which means that if such monarchs of the air depend on the Robert Bosch Super-Energy Magneto, so should you.

Of course if you're satisfied to take a chance on spoiling a day's outing, a less reliable ignition system will do. But if you want to forget your magneto for the summer, be sure to install a Robert Bosch Magneto this spring.

This magneto was meant to go to sea, for it is waterproof, damp-proof and needs no old fashioned covers to protect it. It is the magneto that *modernized* magnetos.

Have you seen the 1930 Robert Bosch Catalog for motor boats? Full facts about the Robert Bosch Super-Energy Magneto. Full facts about the Robert Bosch Vibro-Balanced Horn, the most popular motorboat horn. Full facts about Robert Bosch Pyro-Action Spark Plugs. We'll be glad to send you a copy on request.—Robert Bosch Magneto Co., Inc., 3603C Queens Blvd., Long Island City, New York.

All Robert Bosch Products bear the full name "ROBERT BOSCH" and this trade mark of Robert Bosch A.-G. . . . . .

Robert Bosch
Super-Energy
Magneto

ROPE ENDS ON MOTOR BOATS

(*Continued from page* 67)

the wildcat and the nigger head and a whipped end will fill the bill. The eye will be satisfactory if used around the base of the windlass.

For mooring lines to be used when alongside a dock there is nothing handier than an eye splice in one end of the line with the other end whipped. Where dock lines are kept below deck in a rope locker, a deck pipe and end plate for rope makes a very neat finish and the line is always handy. The bronze knob on the end of the rope may be a little unhandy and an eye can not be spliced in the end of this rope. However, the plate could be chained fast with a light chain and fitted with a hook inside and the rope hung on the hook. If dock lines are kept on deck, put an eye splice in the shore end for passing over piles or cleats and whip the other end.

To make the eye splice unlay the strands for a short distance and then seize the rope to prevent it from unlaying further. It is not necessary to whip the ends of the strands except in large ropes. Make a loop of the desired size by laying the loose strands on the standing part of the rope. Tuck the middle strand (2) under the strand it lays against. Strand 1 is then taken over the strand under which strand 2 was passed, and under the next strand. Then, turn the rope over and tuck strand 3 under the third strand of the standing part. The strands after tucking should all come out on a diameter of the rope. Continue with two more tucks with each strand, over one and under the next. Three tucks are generally considered as strong as the rope. The strands are then halved by cutting from the under side of the strands and again tucked. The halving is repeated each succeeding tuck so as to taper down the splice and make a neat finish. Do not cut off the tucks too short but leave a little end to be taken up by the strain.

If the mast is demountable, snap hooks spliced over thimbles in the ends of the guys will be found very handy. If the guys are wire, you will find much satisfaction in having the work done by someone who knows how to splice wire rope. For a fixed mast make up the guys with spliced in thimbles two or three inches shorter than required to reach the eye on deck. Make the connection with about six turns of marlin through the thimble and the eye and after knotting the marlin at the middle of the lashing take several turns around the lashing to tighten and secure it. These lashings can be cut to remove the mast at hauling out time and renewed on going in commission.

Any boat should have a few extra lines aboard. A hand line will come in useful at times and an extra anchor cable can be used for towing, although a lighter line would be easier to handle. Whipping is the most practical finish for the ends of all extra lines and light lines aboard the boat. The crown has not been recommended on account of the increase in size at the crown. The knob on the end of the rope may cause trouble if it should become necessary to let the line run free. In passing over the cleat or other fastening the large end is more likely to foul. If it fouls, cutting the rope is about the only way to get it loose with the strain on the rope. A line should never be made fast at the very end. Always have a few feet of line beyond the fastening so that a couple extra turns may be taken for added security and to provide a means of getting hold of the line to unfasten it. No line should be taken in the hands by the very end. Grasp it a couple of feet from the end and it will not slip from your hands.

W. B. M., Newburgh, N. Y.

VENTILATION FOR SMALL CRUISERS

(*Continued from page* 100)

able steam and grease accumulations. Where a few provisions are stowed in a galley with no refrigerator, a low-speed, 6 or 8-inch fan nearby, run continuously during the hottest hours of the day and while cooking, keeps things sweet and sanitary. Manual control of the fans seems preferable to automatic means in the galley.

Small space generally makes toilet ventilation difficult. An overhead discharge electric fan may be wired to the inside door latch so that locking the door starts the motor and unlocking it stops the ventilation. The outlet pipe leads upward to a screened and swivelled outside ventilator having a down-pitched elbow. In a toilet larger than average an electric ozone machine may be installed if the boat has its own lighting plant of 32 volts or more. In weight and size late models are comparable to portable typewriters. Through increased atomizing of oxygen, these devices eliminate all kinds of odors. Cost may be considered no obstacle, as they range from $20 to $50, but maintenance and depreciation are low.

Probably the chief lure of the motor boat is sunshine and fresh air. There can be no guarantee of the sunshine, but we can keep the fresh air continuously at par with good ventilation.

D. McC., Cleveland, O.

Advertising index will be found on 3rd last page

A NEW CHRIS-CRAFT

$1295.00

"Now I can have a Chris-Craft!"—Instantly the thought will spring into thousands of minds upon reading this announcement: A 17-foot Chris-Craft priced at $1295! A moderate down payment will now place in your hands the finest motorboat of its size in the whole world! ▾ ▾ ▾ Chris-Craft ownership, long a source of pride to those who can afford anything they want, is now within reach of the family of moderate income. ▾ ▾ ▾ Continually increasing leadership, multiplied sales, and new economies, make it possible for Chris-Craft to offer this 17-foot luxury craft at $1295. ▾ ▾ ▾ A marvelous boat it is, true Chris-Craft in every inch of its gleaming mahogany hull, Chris-Craft in its staunch seaworthiness, Chris-Craft in its speed and complete safety. Chris-Craft quality is evident in its luxurious cushions, in the automobile type steering, starting and lighting devices, horn and windshield. Its full-powered dependable motor, its sturdy double-planked bottom and its marvelous control are typical Chris-Craft characteristics. ▾ ▾ ▾ True Chris-Craft it is, full brother to the magnificent Chris-Craft Yacht itself, and equally the envy of all beholders. To thousands who have dreamed of some day owning a Chris-Craft this announcement will mean dreams come true. See your Chris-Craft merchant today. Buy early. Make certain of delivery for a full season of outdoor joy. Write for catalog describing the entire fleet of 25 Chris-Craft models.

FEATURES OF THE 17-FOOT CHRIS-CRAFT

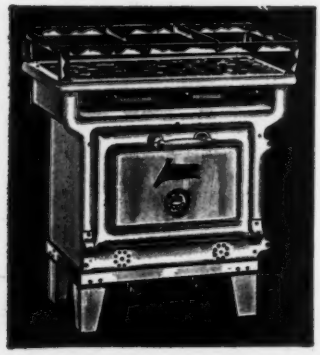
25 miles per hour • Length 17 feet • Beam 5' 7" Freeboard, forward 24" • Freeboard, aft 18" Draught 16½" • Double planked bottom • Positive steering control (shaft connection —no cables) • Smith Automatic bailer • Full ventilating automobile type windshield • Screw fastened throughout • Salt water equipment • Lifting ring fore and aft • Tachometer, oil pressure gauge, ammeter • Fire extinguisher, Kapoc cushions, and all accessories leaves nothing to buy.

25 Models: Runabouts—Sedans —Commuters—Cruisers—Yachts. 17 to 48 feet—$1295 to $35,000

CHRIS SMITH & SONS BOAT CO.
385 Detroit Road - Algonac, Michigan
New York Showrooms: - 1 West 52nd St. at 5th Ave.

Chris-Craft

World's Largest Builders of Mahogany Motor Boats



"WILCO"

Safety Alcohol Stove

White, vitreous Enamel Trimmed with Bronze

Cook with alcohol—it's safe, cheap, clean and easily obtainable. "Wilco" Alcohol Stoves are standard equipment on many leading cruisers, and are approved by insurance underwriters.

This handsome range has 3 top burners and oven burners. Width 29 in. Depth 17 in. Height 38½ in. Oven18x12x12.

Price, with copper tank, tubing and fittings. $125.00

Simplifies Handling Outboard Motors

For Club Floats Service Stations Private Docks Race Meets

The STURGES OUTBOARD Motor Hoist

will easily and quickly raise or lower your motor into place and simplifies the problem of attaching or removing it from the boat with absolute safety. Essential for handling large outboard motors. With the Sturges Outboard Hoist you can launch your boat and attach the motor without assistance or strain and in less time. The Sturges Hoist may also be installed on your cruiser to handle the dinghy. Strongly constructed and designed to lift loads up to 400 pounds with ease. Also Sturges Anchor Hoists, Sturges Dinghy Line Controls, and Sturges Jiffy Mooring Snaps.

Extra Large Handle
Extra Knuckle Clearance
Plunger Rod with Reinforced Sleeve
Priming Plug
Self Lubricating Stuffing Box
Swivel Adjustable Bracket Permitting Port or Starboard Mounting
Extra Heavy Cast Bronze Top
Barrel of No. 16 Gauge Seamless Brass Tubing 2¾" Diameter
Swivel Adjustable Bracket Permitting Port or Starboard Mounting
New Everwearing Valves (Inside)
Extra Heavy Cast Bronze Base

"Wilco" Impr

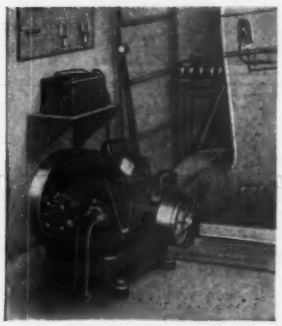
Bilge Pu

A "Wilco" specia popular bilge widely imitated lutely unequalled. stand hard usage solutely fool proo ing can get out 1¼ in. supply, 1½ charge. Length

PRICE $8.

ELECTRIC LIGHTS ALWAYS

with this independ



BRANFO LIGHTING PL

A powerful little gasoline connected to an efficient Weighs only 50 pounds. one small storage battery, stalled anywhere. Will and radio batteries always operate small pump and veniences. An ideal indep of electricity for small sail boats and house boats.

PRICE, 6-Volt 12 Volts

Combination Coverall and Life Preserver Suit

Made of durable herringbone drill (not waterproof) in one-piece style, in white color only. Entire suit is triple needle stitched throughout and bartacked at important seams. Hookless Fastener all the way down front. The life-preserver feature is accomplished by means of two compartments on each side in front and one large compartment in back, holding in all eight tubes of rubber filled with finest quality Kapok. These rubber tubes are vulcanized and easily removed for laundering purposes. The compartments are so arranged as to allow plenty of freedom of movement. Kapok cannot come in contact with water. A double purpose garment, as this suit eliminates the use of any other life preserver.

PRICE $15.00

Come in and let us fit you to a UTE, or send us your chest and measurements and we will ship you a UTE postpaid. Sizes: Small, Medium, and Large. Extra Large 10% extra.

Live Dealers Should Write for WILLIS' DISCOUNTS

Recommend

E. J. WI

EQUIPMENT

112-Page Catalog Free

85 CHAMBERS STREET · N

The new 1930 M2 Maxim Silencer for motor boats silences exhaust noises without creating back pressure. Simple to install. Standard sizes, 1½" to 4".

Improved
Marine Lights

Standard equipment on Chris-Craft, Dodge, Hackercraft, Matthews and other fine cruisers and runabouts. Many patented improvements—Streamline Running Lights that can be rebulbed without removing fixture from deck—Regulation Lights with front opening doors—easy to clean—equipped for both oil and electricity—new ideas—and quality construction.

T US SHOW YOU
The Improved
ANDS
NNER" CLOSET
DARD EQUIPMENT on
of the finest stock cruisers
most popular marine closet.
production has reduced
to
75 with Oak or Mahogany Finished Seat and Cover
Chi-white Pump, Seat and
illustrated.....$45.75

KAPO Safety Coat

6 TIMES MORE BUOYANT than CORK

Made especially for the motor boat trade and wherever a life preserver is required that will fit snugly to the body, permitting a coat to be worn over it. Made in four sizes; cover is khaki, strongly sewed and well finished. Filling is kapok, a silky downy vegetable fibre of exceptional life and resiliency, absolutely non-absorbent and its buoyance is 25 to 1 or six times greater than cork.

Size Nos.	Chest, Inches	Price
1	24 to 30	$6.00
2	32 to 36	6.50
3	38 to 42	7.00
4	44 to 48	8.00

Wears and Washes Well.
One Trial Will Convince.

Kirby Paints

They are the lowest priced reliable paints obtainable.

Copper Bottom Paints, Flat Yacht White, Gloss Warship Gray, Gloss Deck Paints, and Engine Enamel always in stock.

Famous with Three Generations of Yachtsmen

GUARD AGAINST FIRES AND EXPLOSIONS

by installing the

"WILCO"

Ventilating System

Expels dangerous, nauseating gasolene vapor from engine room and bilge, and keeps the galley and cabins cool and sweet.

Requires little current, and can be mounted through deck, or cabin top.

Write for descriptive circular

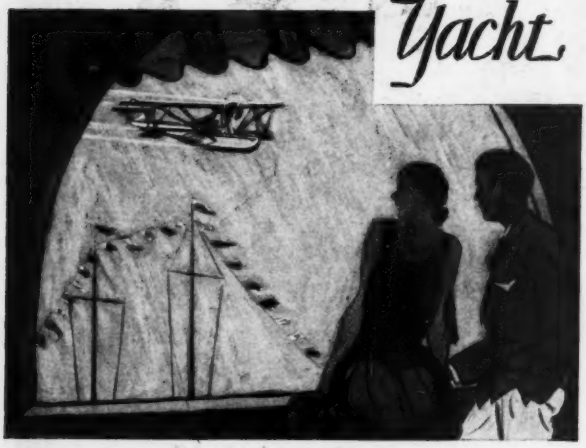
Sold by

ISCO

EADQUARTERS

67 READE STREET — *Established 1888*

EASTMAN *Flying Yacht*



. . . exciting admiration at many a club . . .

The Eastman Flying Yacht—speedboat and sport plane combined—has won widespread favor among yachtsmen. They like the trim lines of this smart pleasure craft—its mile-a-minute speed on the water—and its thrilling performance in the air. ¶ Yachtsmen find that learning to fly the Eastman is unbelievably easy. It practically takes itself off, in only 8 to 12 seconds—and in landing the ship is simply flown in, and the keel touched to the water. ¶ The Eastman has a cruising speed of 90 m.p.h.—112 open throttle; climbs 1000 to 1200 feet per minute. It accommodates four comfortably—and has a range of 300 to 400 miles, according to fuel loading. ¶ This summer enjoy the pleasure of "yachting" in an Eastman. It is both low in first cost and economical in operation. Write for complete information. Dealers: Send for sales franchise details.

DETROIT AIRCRAFT

FORT AND CAMPAU STREETS, DETROIT

Chanin Bldg., New York :: Roosevelt Bldg., Los Angeles

Eastman Aircraft Corporation	Blackburn Aircraft Corporation
Ryan Aircraft Corporation	Aircraft Development Corp.
Lockheed Aircraft Corporation	Marine Aircraft Corporation
Aircraft Parts Company, Inc.	Grosse Ile Airport, Incorporated
Parks Air College, Incorporated	Gliders, Incorporated
Parks Aircraft Corporation	Detroit Aircraft Export Corp.

LADIES ABOARD

(*Continued form page* 24)

of them had the before mentioned and strictly feminine mirror.

The berths were comfortable looking and easily made up, but that is not solely due to the influence of the ladies, for as long as I can remember the captains were trying out ways of making the bunks more sleep-inducing than bare boards. Even men like comfort.

When there were drawers under the berths, they slid out on rollers and one no longer had to be an herculean person to open them. In fact, most of the hardware was quite wonderful, especially to the members of that secret society of boating females, who go into operation after every rainstorm. I mean those of us who have opened hatches with a well padded pot holder and a hammer, or who have ever gone out on a wet deck to pry up a skylight with a screwdriver, or who have forced portholes with pliers (wasn't it funny how the little do dabs always snapped off?). But this hardware looked as if it might work in any weather and most of it will never need polishing.

And the plumbing! Boats of any size boasted two lavatories, and the fixtures were foolproof and easily cleaned. However, there is still room for improvement here, since the boating world awaits the genius who will put a bath on a thirty-six foot cruiser, without taking up too much room.

The manufacturers of chairs and tables, dishes and cushions as well as decorative boating equipment show a larger range of colors and shapes than ever before and what man cares about the shade of the chair he sits on?

Even the runabouts had an eye on the ladies, with their attractive woodwork and upholstery, and silvered dashboards, they would appeal to any woman who owns a fast car. No salesman especially urged me to buy one, but perhaps that was only because I did not look as if I could support one in the gasoline to which it was accustomed, nor were any especially featured for the woman driver, but you can't expect everything at once, just wait until next year.

But the place they were all ready for their women customers was up among the outboards. They had lots of women working there and they were as anxious to tell other women about their boats and motors as they were the men. And the talk about how light and easily managed their outfits were, suddenly had a decidedly feminine side. All you had to do was look interested and your chance of coming away with a boat and motor was as good as any man's so far as sales effort was concerned.

Oh, they are trying to sell us on this boating sport all right, but whether their little comforts will overcome our inherent dislike and fear of the water remains to be seen. For we've had it with us a long time, ever since men earned their living fighting the sea and we learned from experience that the sea always won. But perhaps it will eventually wear away, with our new confidence in seaworthy boats, with reliable engines, and those lovely, lovely galleys. Anyway it was some satisfaction to have our say, and for the first time the manufacturers were anxious to listen.

There was only one lady at the show who made no remarks about any of the boats. And she was there every night too, dressed in a trim yachting costume; she sipped inexhaustible tea from seagoing china, and if I recall correctly was made of wax.

JUDY ANNE MAHONEY.

HABANA SPORTSMEN ENTERTAIN AGAIN

(*Continued from page* 47)

Madoshumi III and Number 5 running their usual smooth paces right behind the winner with much less power. In the grand free-for-all, the last event of the regatta, Buckeye joined the runabouts and the results were Lililoi II first with Buckeye second and Madoshumi III third.

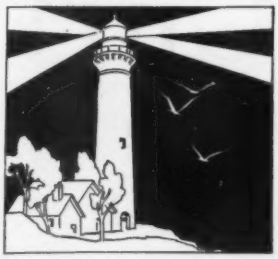
As in the past, very beautiful trophies were in readiness that evening when all the guests joined with the local committees at the Habana-Biltmore Yacht Club for the usual beautifully appointed banquet. Dancing continued throughout the dinner as well as afterwards. The flowered tables and the sparkling glasses at each place will long remind those present of that wonderful occasion. Seno Posso presented the trophies amid much applause.

Thanks were expressed by Senors Posso and Cabrera to the Americans, and Commodore Chase of the Miami Beach Yacht Club responded. For the Americans who had never visited Cuba a great many interesting things were awaiting them. Those who have been so fortunate as to have visited this island of true southern tropical hospitality, were glad to again partake of the entertainment that abounds there and to renew the fellowship of their delightful hosts.

Advertising index will be found on 3rd last page

Commencing at $3150 . . . . TO GUARANTEE ENDURING QUALITY . . . .

RELIABILITY



Hackercraft are hand-built. "Skimping" in materials and workmanship is never practiced in the Hacker shops to achieve lower prices. Price-cutting sins against quality—and quality is a paramount consideration in selecting a boat. You'll discover that Hackercraft are not volume production boats. They are carefully and skillfully built from the finest materials known to the boat builders' art. From their chromium plated cutwaters to their solid oak strut members every inch of a Hackercraft presents a sturdy picture of integrity and wholesome design. From their copper riveted (not screw fastened) double planked bottoms to their luxuriously comfortable genuine leather upholstering, Hackercraft guarantee enduring quality and greater owner satisfaction. A Hackercraft is never expensive by comparison. Write for the new catalog, and if interested, for complete dealer information.

HACKER BOAT COMPANY
530 River Drive Mt. Clemens, Mich.

The 10-passenger 26-foot Hackercraft gives 45 m.p.h. $4475 f.o.b. factory.

The Hackercraft Cruiser-Commuter is a twin screw 42-44 m.p.h. boat sleeping four. $17000 f.o.b. factory.

HACKERCRAFT

AMERICA'S FASTEST SPEED BOATS

Joseph T. Curtis

Sales Representative in

LONG ISLAND Metropolitan Area

for

A · B · C · HOUSEBOATS

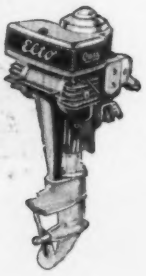
A · B · C · BATH BOATS A · B · C · TEA BOATS A. B. C. LANDING FLOATS

These 45-foot House Boats as described on the opposite page strike a new chord in marine comforts. Low priced and ideally suited for Long Island waters, either as a summer home, hunting or fishing headquarters, yacht club or for swimming organizations. Come and inspect this four-room house boat which has every convenience of a city apartment.

Also Sales Agents for

KYLE CRUISERS—43 and 50 Feet
CORSAIR CRUISERS—30 and 36 Feet
ROBINSON SEAGULL CRUISERS and COMMUTERS
ACO SEA BOATS—16- to 26-Foot RUNABOUTS
LUDINGTON SPORTSHIP RUNABOUTS
INDIAN and ELTO OUTBOARD MOTORS
BOYD-MARTIN—PENN YAN and INDIAN OUTBOARD BOATS

Robinson 39-Foot Seagull Sport Sedan



Ludington 17-Foot Sportship

JOSEPH T. CURTIS

Showroom and Main Office

Beach 94th Street and Cross Bay Boulevard
ROCKAWAY BEACH, NEW YORK

Telephone: Belle Harbor 0543

Demonstrating Headquarters:
Belle Harbor Yacht Club
Belle Harbor, N. Y.

YACHT BROKER
MARINE INSURANCE

Far Rockaway Office:
315 Beach 20th Street
Tel.: Far Rockaway 4813

Demonstrations in the Water

Advertising index will be found on 3rd last page

SO MANY *NEW* THINGS TO DO ON THIS HOUSE BOAT

The superb new ABC *House Boat.....45 feet long, 11 feet beam*

NEW JOYS, new thrills, a new conception of life afloat. A place for rest or uninterrupted work; a rendezvous where guests learn a new meaning of the word "hospitality." No dust or fumes. The starry sky, your canopy by night; the wide horizon your only boundary by day.

The ABC boat is 45′ x 11′; plenty of room to live in thorough comfort or to entertain a score of guests. Sturdily and heavily built. Low in price.

Finished by experienced interior decorators to standard, or in your own choice of color combinations.

There are two comfortable state-rooms, galley, bath, lounging deck and a really luxurious living-room. The upper deck may also be covered with an awning, giving an unobstructed space of 11′ x 40′.

The ABC boat is used as a guest-house at country estates, as a shooting or fishing club, as a tea-house and, with slight changes in arrangement, as a bath-house or floating dock. But its most popular use is that of an economical, spacious floating summer home of downright solid comfort.

Write for complete description, blue-prints, price and terms. Mention for what purposes you intend to use your ABC boat. No obligation. Write at once.

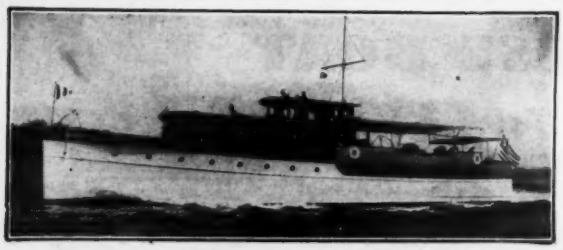
AMERICAN BOAT

S. CLYDE KYLE, *Vice Pres. & Genl. Mgr.*

Corporation, Inc.

General Motors Building, 1775 Broadway, New York

Cruisers from twenty to fifty feet. Commuters,
Sport Cruisers, Sailing Yachts, Small Boats.



STANDARDIZED

yet

"built to your order"

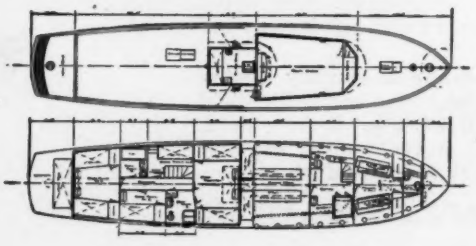
The magnificent 77-foot Cruiser pictured above is now ready for your inspection. We cordially invite you to visit our shipyard and examine this sensational boat at your leisure—and to witness its performance in the water. Its enthusiastic reception by the water-loving public is proof that there has been a long-felt need of a standardized yet thoroughly *individualized* cruiser of this size and type.

In all kinds of weather this sturdy, rugged cruiser is dependable and seaworthy. It possesses a grace of line ordinarily found only in yachts of much larger size. Above all, it is built for continued and reliable service. We urge you to see this boat before you make any decision or selection for the coming season. Let us send you complete details, exterior and interior views, specifications, prices, etc.

Our Custom-built Department has been an integral part of our organization ever since we began business thirty years ago. We would be happy to submit plans and specifications covering your individual ideas.

SPECIFICATIONS

16-foot Beam
Double-planked Hull
Decks of Teak
Houses of Mahogany
Two Double Staterooms
Two Single Staterooms
Two Bathrooms
Combination Dining and Living Room
Large Deck House
Captain's Stateroom adjoining Pilot House
Galley running full width of boat
Quarters forward for Crew of Four
Frigidaire Ice Machine
Decatur Pressure Water System
110-volt Electric Generator
Bilge Pump
Electric Windlass
15-foot Tender
12-foot Dinghy
Unusual Appointments and Refinements
Powered with either Gasoline or Diesel Motor



The New York
Yacht, Launch & Engine Co.
Morris Heights, New York City

INVITATION TO CRUISING

(*Continued from page 34*)

explorer: He takes aboard stores, leaves his base of supplies, and pushes resolutely into unknown territory for half the period at his disposal. In the second half, having achieved his Ultima Thule, he returns, and the home journey is the more enjoyable because with each day's new adventures is combined the pleasure of reminiscence.

Speed in cruising, it seems to me, is a matter of small moment. It may be pleasant to own a boat which is a little faster than the Jones's, but we must be content to let the unknown Browns and Robinsons with their express cruisers and their fast runabouts leave us in the lurch. It is also gratifying occasionally to chalk up a day's run of eighty or a hundred miles when conditions favor. In the main, however, the joy of cruising is found in a steady rate of progress and the gradual unfolding of the panorama. Speed to defeat the strongest counter current and power to breast the heaviest head seas—these we must have. But if we start to compare the ten or twelve knots of a motor cruiser with the possible forty or fifty miles of a motor car we shall not only be disappointed but shall obtain a false estimate of the benefits of cruising.

I have no quarrel with the devotees of high-speed motor boating so long as they don't pass me too close and rock me too violently. There is even a certain thrill to proceeding so fast that water and land are merged in an indistinguishable blur. But I could get a bigger thrill out of speeding past a traffic light when I knew there was a traffic cop on the corner waiting to take off in pursuit. After all, a motor boat is no more than a toy unless it is also a home. Children grow tired of toys. People also leave home for lack of variety. But I have yet to see the man who grew tired of the home that he could take with him when he needed a change of scene.

The manufacturers of floating homes have not failed to learn that the average man buys a boat only with his wife's approval. The appeal of the modern cuiser, therefore, is not only to their joint love of adventure, but to a woman's appreciation of home comforts. If it were not for the present tendency of Americans to forsake large houses and live in small apartments it might be difficult to convince women that comfort can be found in the restricted area of a small boat. But the transition from a two-room apartment to a single- or double-cabin cruiser is, fortunately, made almost without pain.

The experienced boat-builder is far ahead of the house-builder in the attainment of comfort in small spaces. The berths of a motor boat, even though they fold up in the daytime, are more comfortable than the beds of a shore dwelling. The galley, small though it is, is more practical than the closet kitchenette. The drawer and locker spaces are more than adequate to the needs of one or two couples.

There remains, in this effort to make the floating home attractive to the wife, the insoluble factor of masculine aversion to anything that resembles house work. I have known husbands so base that they always found essential work to be done on deck when it came time to prepare the meals. Others have advocated throwing the dirty dishes overboard rather than turn their hands to washing them. Such reprobates should be dealt with as they deserve and allowed to starve—or else the wife of a prospective boat buyer must make her husband solemnly vow that he will share the house work.

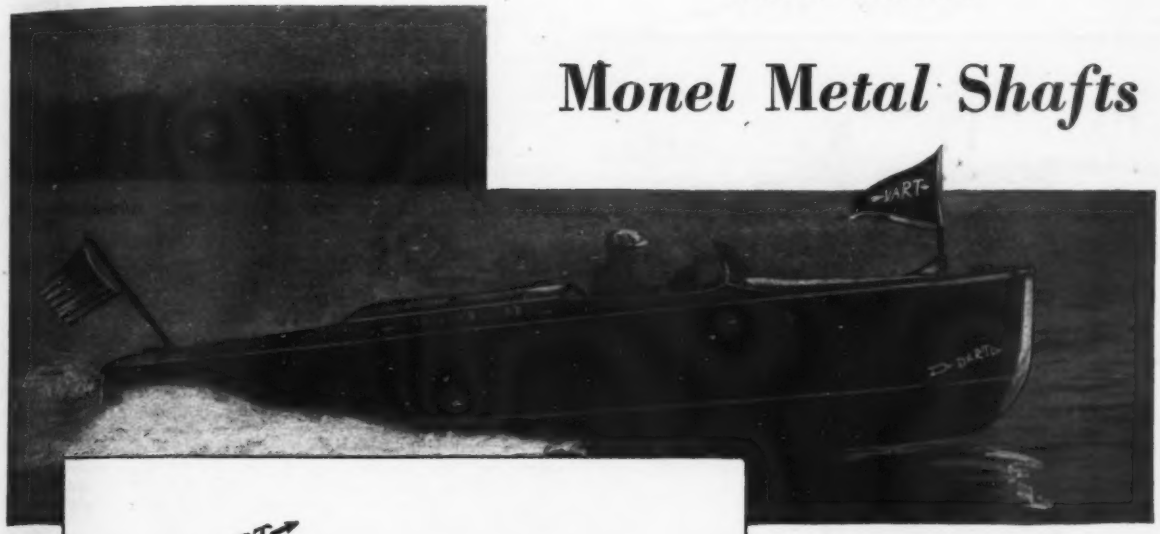
There are, however, boatwomen who let their husbands pursue their errant paths and merely transfer their shore duties to their floating homes. With the commencement of the yachting season many couples and families tie their craft to permanent moorings and spend the summer afloat. The husband and father goes to work in the morning—good riddance—and the wife and children stay aboard. Half an hour with the bedding and the breakfast dishes, five minutes with dustpan and broom, and the housekeeping for the morning is accomplished. After that, swimming over the side, paddling or rowing in the canoe or tender, attention or inattention to the radio, and the morning passes. In the afternoon the boatwoman raises the windows of the cockpit to keep the cards from blowing away and invites her friends aboard for bridge. (And is there a woman with soul so dead that she can't get a kick out of asking friends to come aboard her yacht?) In the evening, dinner ashore at the yacht club.

Yes, it is possible to paint a very pretty picture of yachting ease and comfort for the delectation of those women who may be reluctant to taste the rarer joys of cruising. In our own case, my wife and I have never felt in the mood to linger among the fleshpots of the home harbor. She, poor woman, knows that I am one of those base wretches, previously referred to, who find work to do on deck at mealtimes. But she has also learned that I will eat anything when afloat from cold corned beef to cabbage in its raw, uncompromising state, and that I am content to combine lunch with supper or go entirely without food

(*Continued on page 114*)

Advertising index will be found on 3rd last page

The New ➤DART➤ 18½-footers also have Monel Metal Shafts



The new Dart 18½ foot Runabout powered for 34 miles per hour by a 75 h. p. Chrysler 6-cylinder Crown Motor with Monel Metal shaft in Goodrich Cutless rubber bearing, as standard equipment. Built by DART BOATS, Inc., *Toledo, Ohio.*

➤DART➤

DART BOATS *Inc.*
TOLEDO.....OHIO

March 1, 1930.

International Nickel Co., Inc.,
67 Wall Street,
New York, New York.

Gentlemen:-

The excellence of performance obtained in our larger models by the use of Monel Metal shafts with Goodrich cutless bearings resulted in adopting this equipment as standard in our 18 1/2 foot boat. Our records show that shaft and strut troubles are completely eliminated by this combination.

Salt water action and the terrific torque developed by modern Marine Motors have long been a source of annoyance to Boat Manufacturers. Monel Metal, with its high tensile strength and rust resisting properties, has solved our problems along this line.

Dart Runabouts have never been built "to a price" and in order to preserve and further the reputation for rugged construction and noteworthy performance which has for so long been associated with the name "Dart", it gives us great pleasure to inform you that Monel Metal Shafts have been exclusively adopted as standard equipment on all models of Dart Runabouts.

Very truly yours,
DART BOATS INC.

WCH:HMB

Webb C. Hayes, II,
President.

Send for illustrated booklet:
"MONEL METAL SHAFTS AND BRIGHTWORK."

THE same properties that make Monel Metal so valuable for propeller shafts also make it the ideal metal for many other marine parts and fittings.

Monel Metal tiller rope is now widely used by leading boat builders because of its unfailing strength, its corrosion-resistance, and its remarkable dependability under the severe conditions of tiller rope service.

If you want information about Monel Metal for any marine use, write to The International Nickel Company, Inc.

MONEL METAL

Monel Metal is a technically controlled Nickel-copper alloy of high Nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company. The name "Monel Metal" is a registered trade mark.

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

CHOSEN by DEE WITE

RUSSIALOID

has been adopted as standard seat covering and trim on all Dee Wite Craft, not only for its enduring smartness and comfort but for its unusual range of colors and patterns . . . its resistance to sea-water and weather . . . and the ease with which its smooth, leather-like surface can be kept spick and span. Send for new booklet of samples.

THE PANTASOTE COMPANY
250 PARK AVENUE NEW YORK

INVITATION TO CRUISING

(*Continued from paeg* 112)

if the necessities or the delights of cruising are pressing or particularly inviting. We have cruised thousands of miles together and although my wife has shared the discomforts equally and done more than her share of work she looks forward to our next cruise with a pleasure equalling my own.

For—I knew I was going to get back to the delights of cruising—there is something about the sport that gets into one's blood. Until last summer when we were tuning up a new boat, we rarely visited the same port twice. Each morning of our cruising life we have weighed anchor and set out for an unknown destination. Study of charts and sailing directions has shown us where we would like to go, but if we go farther or fall short of our chosen objective it matters little. All day in the sunshine, (or the rain, for that matter—rain at sea is little regarded and soon forgotten) watching the play of wind and light on the water, attending to the navigation or identifying landmarks, and at evening a snug anchorage, healthy fatigue, complete relaxation, and a bright prospect for the morrow's adventures.

People say, "Don't you take a pilot?" Heaven forbid! Would you hire a professional to play golf for you? One of the thrills of cruising is its utter independence. You go where the spirit moves you to go, doing what less fortunate beings are unable to do. If a passage looks on the chart too intricate for your own abilities as a pilot you avoid it for the time being and wait till your experience matches your desire. In time you get the feel of the sea and the shore. No two sets of conditions are the same, and yet the intuition born of experience keeps you out of danger. You learn when it is safe to cut corners, and if a sense of adventure urges you to disregard safety and take chances you double the thrill of cruising. A few words of praise such as, "I didn't think it possible for a stranger to get in here without a pilot," will submerge the toughest inferiority complex.

I cannot conclude this invitation to cruising without mention of the dangers involved. They are always present to punish the foolhardy and encourage the prudent. Sport always includes the element of risk. Some day when you ought to remain in port you will shove off in the teeth of a howling gale. And you will pull through with an exciting tale to tell. Some other day when you are a bit overconfident you may try it again and run out of gas at a crucial moment and drift down to leeward and bounce over a couple of shoals and watch green water break over you. Perhaps somebody will have to come to your rescue, or perhaps you will get out of the scrape by your own ingenuity.

Yet when it is all over and your respiration is normal you can say to yourself, "Twelve hundred people killed by motor cars in the streets of New York last year. And here am I flirting with death and getting better than an even break—and enjoying it. If I hadn't been here I might have been in the city getting run over by a truck, and there's no novelty or glory in that."

So you'll dry out the cushions and put the boat to rights and fill up with gas and agree with me that there's no sport like cruising. Colonel Lindbergh proved that the motor cruiser is ideal when he bought a 38-footer sight unseen and with his bride eluded public curiosity for a week. Others in all walks of life have proved to their own satisfaction that the motor cruiser offers complete freedom with a minimum of expense, a minimum of technical knowledge, a minimum of trouble, and the maximum enjoyment.

And it certainly keeps you off the highways, where, if you're not being run over, you're running over some one else.

THE FIRST BIG REGATTA OF 1930

(*Continued from page* 82)

finished in third position. In the second heat, Sparrow V owned and driven by Elmer H. Johnson of Bennington, Vermont, finished in first position showing a speed of 45.87 miles per hour, the best 151 inch speed shown at this winter's regatta at Miami Beach. Bayhead II finished in second position, Miss Daytona third and Buckeye II fourth. In the final scoring based on the two heats, Bayhead II took first position, Buckeye II second, Miss Daytona third and Sparrow V fourth.

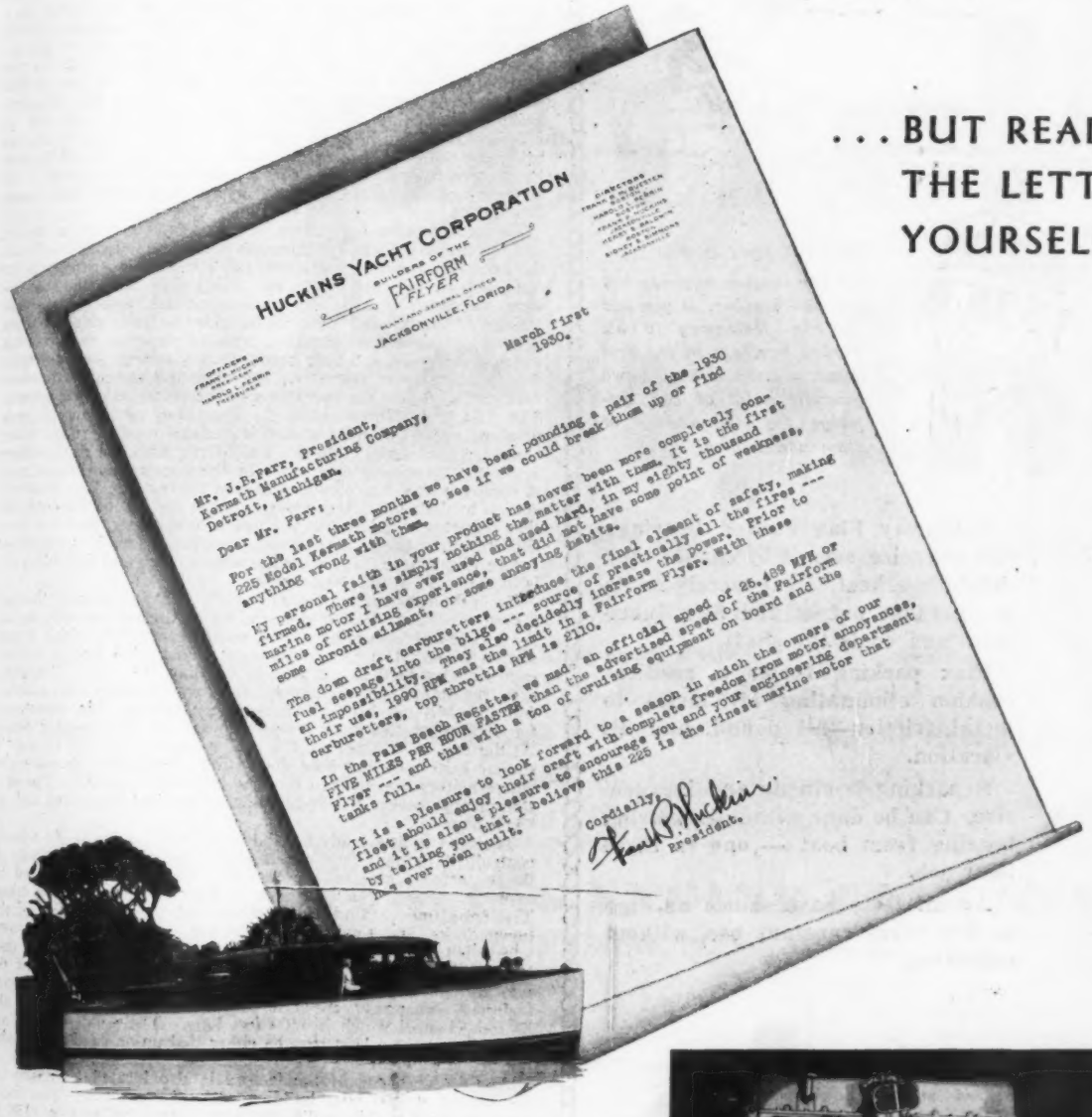
Gar Wood's express cruiser, Gar Sr. II ran away with both the express cruiser free-for-all and the express cruiser handicap. Margaret F owned by T. B. Funk was second in the free-for-all with Ming Toy owned by H. G. Dechant finishing in third position.

In the free-for-all race which consisted of one heat of six miles, Buckeye owned and driven by Gibson Bradfield finished in first position while a Chris-Craft owned by E. R. Jones finished in second position.

A complete summary of the results of the Miami Beach Regatta will be found on pages 78 and 80

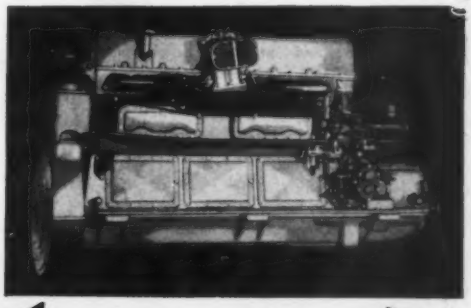
Advertising index will be found on 3rd last page

IRREVOCABLE EVIDENCE OF A TESTED SUPERIORITY


HUCKINS YACHT CORPORATION
BUILDERS OF THE
FAIRFORM
FLYER
PLANT AND GENERAL OFFICES
JACKSONVILLE, FLORIDA
March first
1930.
Mr. J.B.Farr, President,
Kermath Manufacturing Company,
Detroit, Michigan.
Dear Mr. Farr:
For the last three months we have been pounding a pair of the 1930
225 Model Kermath motors to see if we could break them up or find
anything wrong with them.
My personal faith in your product has never been more completely con-
firmed. There is simply nothing the matter with them. It is the first
marine motor I have ever used and used hard, in my eighty thousand
miles of cruising experience, that did not have some point of weakness,
some chronic ailment, or some annoying habits.
The down draft carburetters introduce the final element of safety, making
fuel seepage into the bilge --- source of practically all the fires ---
an impossibility. They also decidedly increase the power. Prior to
their use, 1990 RPM was the limit in a Fairform Flyer. With these
carburetters, top throttle RPM is 2110.
In the Palm Beach Regatta, we made an official speed of 26.489 MPH or
FIVE MILES PER HOUR FASTER than the advertised speed of the Fairform
Flyer --- and this with a ton of cruising equipment on board and the
tanks full.
It is a pleasure to look forward to a season in which the owners of our
fleet should enjoy their craft with complete freedom from motor annoyances,
and it is also a pleasure to encourage you and your engineering department
by telling you that I believe this 225 is the finest marine motor that
has ever been built.
Cordially,
President.

. . . BUT READ THE LETTER YOURSELF

No casual opinion this—nor vague generalities—but an impressive testimonial! And Mr. Huckins knows his marine motors—both as an experienced boat builder, graduate engineer, and yachtsman. His opinion bulks large with us. His views are invaluable. His endorsement of Kermath twin screw power for fast cruisers is striking evidence of the stamina and speed built into Kermath engines. The 45-foot Fairfoam Flyer, powered with twin 225-horsepower engines, gives a 20-mile cruising speed, top speeds of 25 miles per hour. Send for the new illustrated catalog on Kermath power for every boating need today. It will interest you in its completeness.



KERMATH MANUFACTURING COMPANY
5879 COMMONWEALTH AVE., DETROIT, MICH.

KERMATH

The Skipper Says:

No use cussing anybody but yourself brother. If you had put in Hathaway Flax Packed bearings in the first place, you would have saved yourself a lot of bad language to say nothing of time and money.

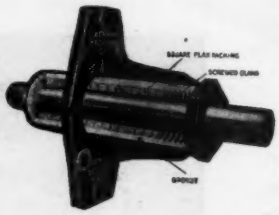
Hathaway Flax Packed Bearings will not seize, even if by chance they should overheat. Heat merely melts the paraffin out of the flax, lubricates and cools the shaft.

Flax packing forms a resilient cushion eliminating all metal to metal friction—all pound, and all vibration.

Repacking is simple and inexpensive. Can be done without removing bearing from boat — one to three hour job.

Actual tests have shown as high as five years constant use, without repacking.

Write for descriptive literature and prices. If your dealer does not handle Hathaway Bearings, we will ship to you direct.



The Hathaway

MACHINERY COMPANY

NEW BEDFORD, MASS.

MONSTER BOAT PLANT OPENS

(*Continued from page* 55)

lumber storage shed, used for drying and seasoning of lumber, and the dressed lumber storage section of the factory are located. Here lumber, transported to the building from the main railroad line by a private system of railroad switching, is graded and stored. At this end of the factory is also located the motor storage and testing room, 31 by 80 feet, and the metal parts storage room, 31 by 70 feet. An office for the receiving, checking and distributing of all material throughout the factory, is here located. It is the clearing house and key position for all material distributed. From here is distributed lumber of the proper kind and grade to the mill, where it is sent through the necessary machines located for successive operations. The mill, 126 by 120 feet, stores its finished material on three wood parts storage balconies, each 18 by 40 feet, and located over the mill section. From here it is distributed to the upholstery department, 31 by 40 feet, located over the mill, and to the construction department, as required.

The construction department, 126 by 225 feet, next in line, is laid out into six distinct stations, to each station being distributed the necessary material for a full day's work. Operations in the construction department are the laying and assembling of the stem and keel, frames and transom, chines and breast hook, stringers, engine and tank beds, side battens, side planking, bottom battens, bottom planking, transom planking, deck framing, instrument panels, and bulk heads, deck planking, floor assembly, coamings, and seat assembly. Dressing and fastening of rough hardware complete the operations in the construction department. The first two stations cover the operations of laying of keels, planking, etc. The third station is enclosed sanding rooms where boats are sanded and cleaned. The fourth, fifth and sixth stations cover the remaining operations in the construction department. A complete overhead monorail system conveys the boat from one station to the next. A transfer crane at the end of the construction department takes the unfinished boat either into the paint department or to the boat storage building where it is stored for future disposition. The superintendent's office and first aid room is located also in this department.

From the construction department the boat is conveyed through a system of large four fold doors, which are opened only during the process of conveying to the paint department, which covers station seven. The paint department, 126 by 135 feet, is entirely enclosed, due to the care used in finishing the boats. Temperature, regulation, and air supply, and exhaust, have been successfully worked out here. The boats are held in this department for four days, this time being required for their proper finish. At the end of that period, the boat is again conveyed through a similar system of four fold doors to the following station eight, where motors are lowered into the hull and installed. The next station nine covers the installation of finished hardware and all finish material.

The boat is now ready for the water test. A large electrically controlled Gantry Crane moves along the launching platform on the waterfront side of the factory. The boat is conveyed by monorail through another system of four fold doors to the crane. The crane moves along to a convenient place over one of the seven docks, and sending the boat out over its cantilever arm lowers it to the water, where it is released. The water test then begins. The boat is stocked with gas and oil from one of the two storage rooms under the launching platform, and is tested under its own power, either in the 200 by 300 foot basin, or the 80 foot channel which is 1500 feet long. The padded docks are so equipped that a boat may be either tied up or partly suspended out of the water at any one of them.

At this south end of the factory is also located a department for use of special boat building and service. This department, together with a shipping department, covers an area of 135 by 124 feet. Boats which are in storage and have been placed there from the construction department, are admitted into this section of the factory. Here the operations necessary are again picked up where the construction department left off, and are carried to completion, making the boat ready for the water test.

The boat storage building, 80 by 340 feet is covered with a complete system of small gauge railroad tracks, over which are conveyed the boats, to and from their storage. The floor is of earth, which contains the necessary moisture to keep the hulls from drying out.

The group is unusual, in that it is a most modern and complete plant devoted entirely to the manufacture of speed boats, produced and organized straight line production methods, and on a scale larger than any attempted before. It is employing the same efficiency and organization which has proved so successful in the manufacture of automobiles. Making allowances for the human equation, there is no lost motion. Tested material is distributed from stock storage racks to the various station racks, each night. Each man knows his position and what he is to do. Everything has been worked out for his convenience and welfare.

Advertising index will be found on 3rd last page

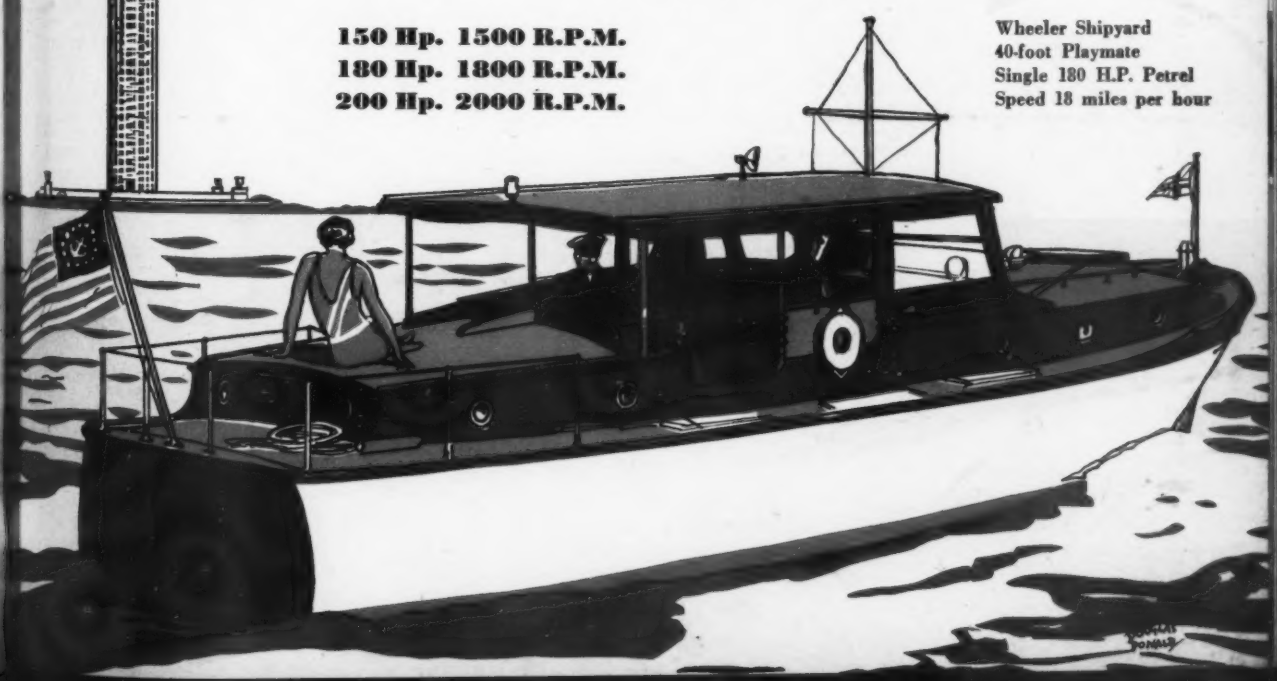
sterling petrel engine

5¼″ Bore **6 Cylinder** **6″ Stroke**

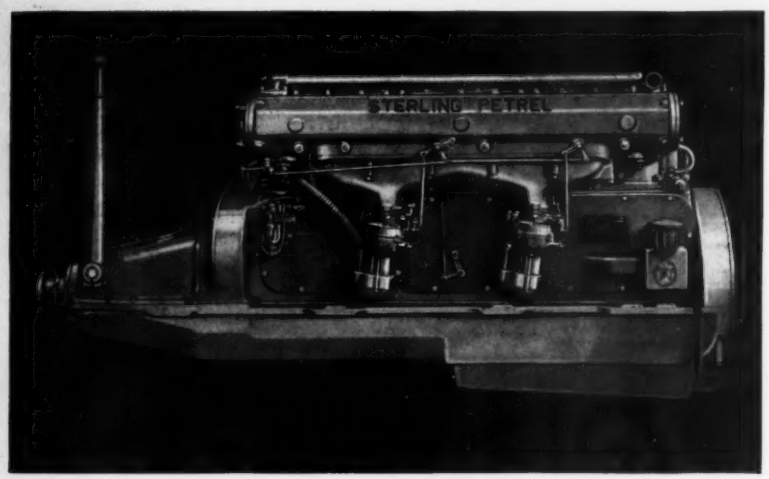
15% Larger Engine
779.3 Cubic Inch Piston Displacement
200 H.P. at 2000 R.P.M.
Scientific Design **Dynamically Balanced**
Turns the Larger Propeller
at a Safe Engine Speed

STERLING ENGINE COMPANY
BUFFALO, N. Y., U. S. A.

150 Hp. 1500 R.P.M.
180 Hp. 1800 R.P.M.
200 Hp. 2000 R.P.M.



Wheeler Shipyard
40-foot Playmate
Single 180 H.P. Petrel
Speed 18 miles per hour



Sterling
THE ENGINE OF REFINEMENT

PERTINENT FACTS

Builders of high speed engines often fail to consider that:

The secondary forces in a modern engine are greater than the explosion pressures and must be compensated.

Secondary forces are composed of

(1) The centrifugal forces generated by the rapidly revolving crankshaft and the lower end of the connecting rod.

(2) The inertia forces developed in starting and stopping the piston and connecting rod at each end of the stroke.

How does this affect the engine?

These forces impose bearing loadings and internal engine strains that rack an unbalanced engine.

In the Sterling Petrel these centrifugal and inertia forces have been calculated and balanced out!

The crankshaft *spins* in the bearings; the oil film is never broken. There is no tendency to wear the bearings nor distort the crankcase. The engine runs smoother and lasts longer.

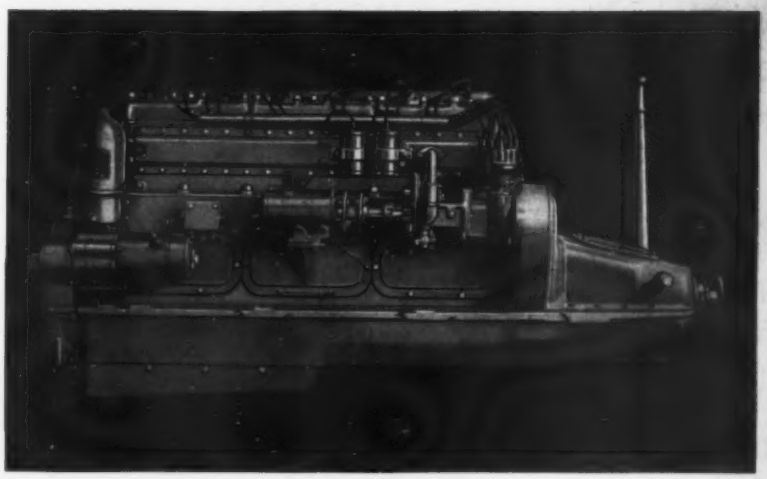
The design is scientific.

The Petrel is a *High Duty* engine.

Toppan
Llenroc 32'
Champion Cruiser
Speed 32 miles

200
Horse Power

2000
Revolutions Per Minute



DYNAMIC BALANCE

Is a crankshaft properly balanced for high speed merely because it has been machined all over? No. It may be in static (stationary) balance but not in running balance.

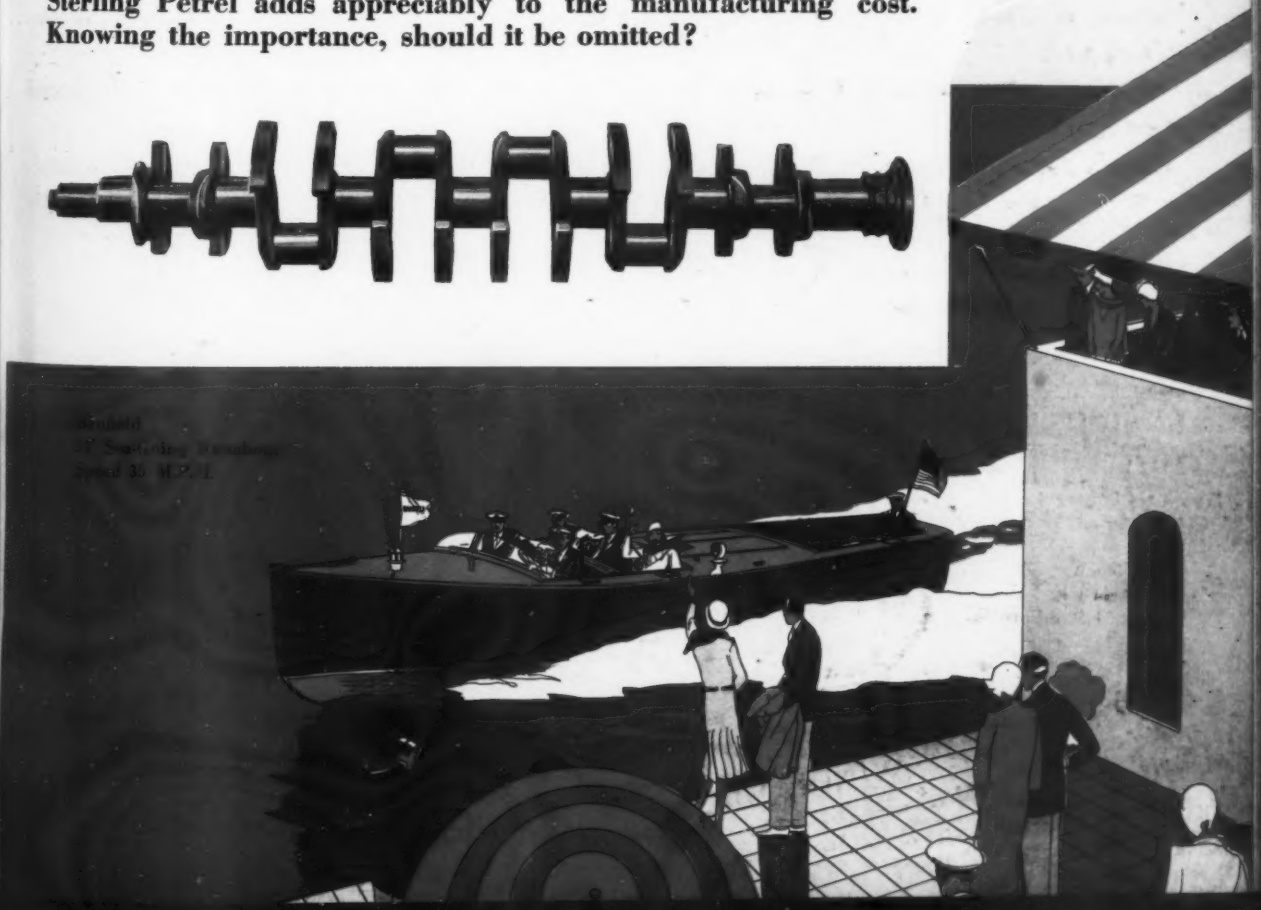
The Petrel crankshaft is in true dynamic balance because:

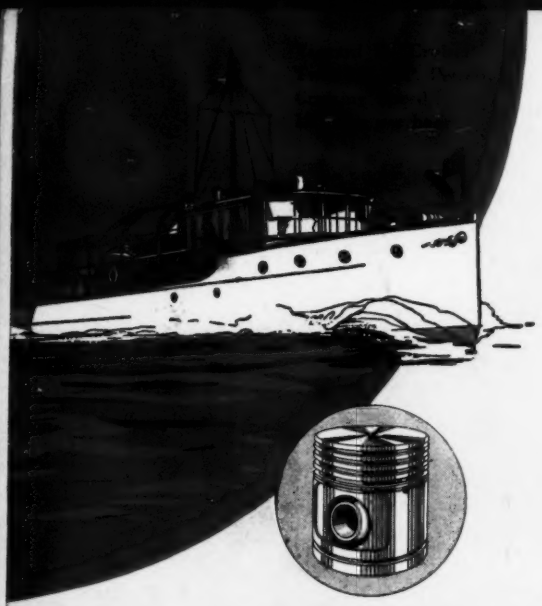
1. It is a seven bearing crankshaft.

2. It has twelve counterweights located to balance each crankthrow in its own plane.

This is the only true dynamic balance. Any other design effects a saving in manufacture but penalizes the engine with unbalanced forces that affect its operation and length of service.

The counterweighted dynamically balanced crankshaft in the Sterling Petrel adds appreciably to the manufacturing cost. Knowing the importance, should it be omitted?





COMPARATIVE ADVANTAGES *of the* PETREL

Compare the size of the Petrel clutch and reverse gear. Full size for the power, tested for 50% load in reverse for one-half hour. Probably never operated for such long periods in reverse. But, this is the only way to assure a strong gear that will function properly for years, indefinitely.

Compare the aluminum alloy piston. No split in the skirt. Not divided from the head. Exclusively a Sterling patent. Reduces bearing loads, does not collect and burn oil under the head. A quite superior piston.

Compare the height of crankcase. More virgin aluminum in the Sterling. Stiffer, stronger metal. (Ten cents a pound could be saved if Sterling would allow a percentage of scrap metal to be used. Crankcases cast of *scrap* aluminum are subject to a peculiar change in the metal after 6 months.) Sterling uses nothing but highest grade virgin aluminum.

Compare the cylinder metal. The Petrel has nickel-iron, dense metal with valve seats that seldom require regrinding.

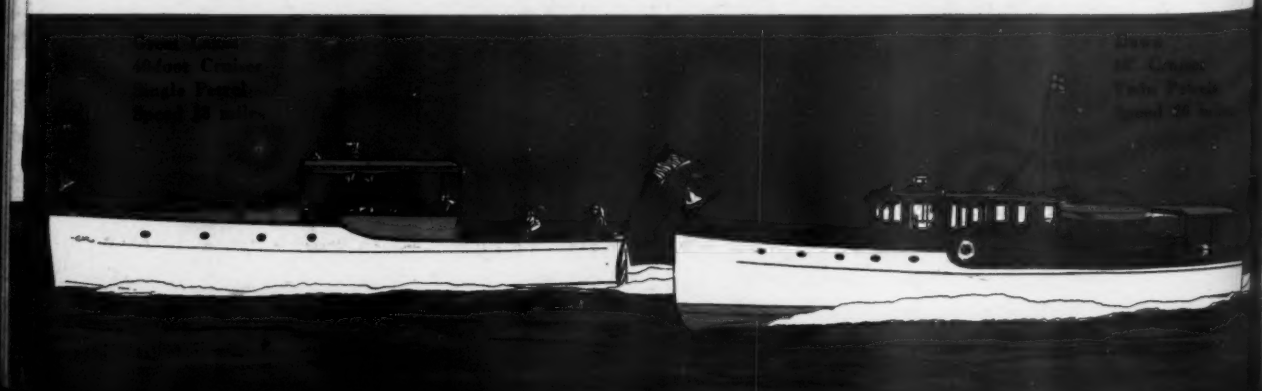
Compare the piston displacement. The Petrel has 779.3 cubic inches. Comparative engines have 678. The Petrel has 101.3 cubic inches more cylinder volume and is 15% larger.

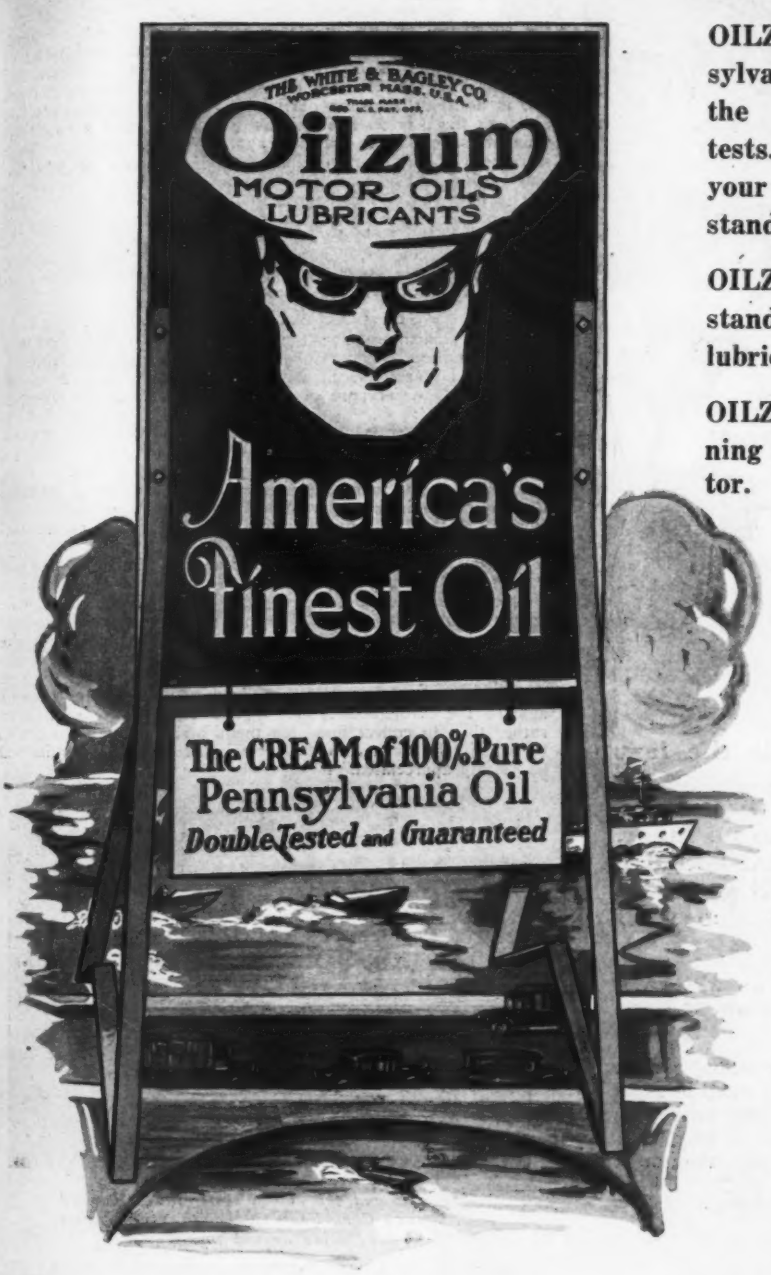
200 H.P. at 2000 R. P. M.

The Petrel turns the larger propeller at a safe engine speed.

Weight 1510 pounds. Price $2500 F.O.B. Buffalo.

Sterling Engine Company, Buffalo, N. Y., U. S. A.





OILZUM is the cream of Pennsylvania oils, always subjected to the most exacting laboratory tests. Every quart you put into your engine has passed our rigid standards.

OILZUM costs less because it stands up and lasts longer and lubricates better.

OILZUM means smoother running and longer life to your motor.

DEALERS

If you want to sell an oil that stands back of every claim you can make for it, ask us.

The White & Bagley Co., Worcester, Mass.

Specialists in high grade lubricants more than 40 years.

If Motors Could Speak we wouldn't need to Advertise

Oilzum

I. C. U.! Metal Polish is the lazy man's friend, because it imparts a high, lasting lustre to brass and other metals with next to no labor. You may be ever so hard-boiled a son of the sea, but you'll get a lot of pleasure chasing the gloom off your boat with I. C. U!

It is greaseless, and leaves no white deposit . . . by its chemical make-up, it is an ideal marine polish.

Sold in the marine field for many years. If not at your supply house, we shall be glad to send you, prepaid, any of the following sizes: 1 gal., $1.75; 1 qt., $.75; 1 pt., $.45. Give name of supply house when ordering;

Dealers—Write for Samples

THE LIVINGSTON CO., DIV. T
NEW HAVEN, CONN.

I·&U
METAL POLISH
for BRASS, COPPER, BRONZE

YARD AND SHOP

(*Continued from page 70*)

the showroom and in an alcove is a very comfortable sitting room with reading table, floor lights, etc., for the convenience of customers. Charles A. Hindman, vice president, is in charge of the New York offices and is Director of Sales. Thomas S. Field, Jr., is assistant Director of Sales. Mr. Hindman advises that although the new showrooms have been only open a very short time, it is possible to trace an appreciable portion of the large increase over last year's business closed to date, to the new display of Banfield boats.

The new showrooms have also been designated as the New York offices of the New Jersey Gold Cup Association which is holding the 28th Gold Cup Regatta at Red Bank, New Jersey, on August 16 and 17, 1930, and it is becoming quite a gathering place for the yachtsmen and boating enthusiasts both residents of New York and visitors from out of town.

REGARDING THE RULES

We are publishing below the contents of a letter received from S. W. Hamilton, Deputy Collector of the Marine Division of the Treasury Department, in which he comments on our recent article on the observance of legal requirements in the operation of motor boats:

"We noticed your article in the March edition of MoToR BoatinG on the legal requirements relating to the registration and operation of motor boats and yachts, and we want to thank you for giving it so much space and going into it so carefully. It is becoming increasingly difficult for us to keep boat owners apprised of the law and articles such as yours are of great assistance to us.

"If you are contemplating further articles along this line may I suggest that you call attention to the necessity of a strict observance of the pilot rules? As boating is becoming more popular many inexperienced people are buying fast and powerful boats and running them as they would an automobile. We receive many complaints in the course of the year about reckless navigation at high speeds. Conditions seemed especially bad last year and in several cases we were obliged to assess heavy penalties against the wrongdoers. Our policy is to prevent violations rather than to collect fines for them, and anything you can do to acquaint boatmen with the necessity of careful navigation will be greatly appreciated."

The new and the old in watercraft. Howard Olmstead's Chris-Craft mahogany express cruiser lying beside an old four-master

BANFIELD APPOINTS BERMUDA DEALER

Messrs. R. A. Darrell and A. F. Darrell, of Hamilton, Bermuda have recently been appointed exclusive Banfield Sea Skiff dealers for the Bermuda Islands. On account of the sudden squalls and extremely rough waters sometimes encountered the new Sea Skiff runabouts and sedans recently brought out by the Banfield company are proving most popular in the mid-ocean Islands. Visitors returning from Bermuda tell of seeing the pilot at the entrance of Hamilton harbor come off the motor ship Bermuda in one of the Banfield boats when it was too rough for the pilot boat, W. E. D. Stokes, Jr., a member of the Royal Bermuda Yacht Club, and J. Ford Johnson of New York Rumon and Bermuda are among those to whom Banfield Sea Skiffs have been delivered in the islands during the last few weeks. The boat delivered to Mr. Stokes is a 26-foot sedan powered with twin Scripps F. 6 100 h.p. motor while Mr. Johnson's is a 32-foot Sea Skiff sedan powered with a 200 h.p. Sterling Petrel. The Darrell Company has one of the latest types of Banfield runabouts on display at Hamilton where it is drawing considerable interest.

(*Continued on page 126*)

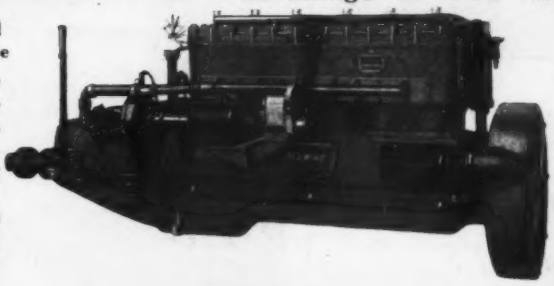
Advertising index will be found on 3rd last page

power at USABLE Engine Speeds with RED WING MOTORS

POWER, running at open throttle in a test block is one thing—and power in actual service turning a propeller is another.

Red wing marine motors are rated at the *usable* horse-power that they'll actually deliver under normal working conditions.

That's one reason for the reliability and long life of Red Wing motors. They handle their load without straining or working at excessive speeds. You'll find this true of every motor in the Thorobred line. There's a size and type for cruiser or skiff — speed boat or tug. Take advantage of Red Wing technical service in selecting the most efficient motor for your individual needs.



Red Wing BB-6 Thorobred
60-85 h. p. Medium duty type

Smooth, abundant power for cruiser or passenger boat. Six Cylinders, bore 4½", stroke 6". 7-bearing drilled crankshaft and pressure-feed oiling. Includes the most advanced features of marine motor construction.

Red Wing Thorobred
THE MOTOR WITH POWER TO SPARE

Nineteen THOROBRED Sizes

4 to 150 h.p.

4 CYLINDERS

D 10-14 h. p.—2¾"x4"
AA 18-24 h. p.—3¾"x4¾"
F 28-36 h. p.—4 1/16"x5"
B 32-40 h. p.—4½"x5"
BB4 40-50 h. p.—4½"x6"
BB4 HS 45-70 h. p.—4½"x6"
Big Chief 50-60 h. p.—5"x7"
Big Chief Special 75-90 h. p.—5¾"x7"

6 CYLINDERS

Warrior 30-50 h. p.—3½"x5"
Arrow Junior HS 35-70 h. p.—3½"x4¼"
Arrow 40-80 h. p.—3¾"x4½"
BB6 MD 60-85 h. p.—4½"x6"
BB6 HS 85-110 h. p.—4½"x6"
BB Sp. 6 MD 75-100 h. p.—5"x6"
BB Sp. 6 HS 100-150 h. p.—5"x6"
Big Chief Six 90-115 h. p.—5"x7"
Big Chief Special Six 110-150 h.p.—5¾"x7"

1 AND 2 CYLINDERS

K 4-5 h. p.—3¾"x4¾"
KK 7-8 h. p.—3¾"x4¾"

WRITE FOR CATALOG

RED WING MOTOR CO. • Red Wing, Minnesota, U. S. A.

EASTERN DISTRIBUTORS

W. H. Moreton Corp., 1043 Commonwealth Avenue, Boston.
Verrier, Eddy Co., 201 East 12th St., New York City.
W. E. Gochenaur Mfg. Co., 631 Arch St., Philadelphia.
F. B. Eisenbrandt, Foot of Light St., Baltimore, Md.
L. L. Tripp, Watervliet, N. Y.

Guaranteed reconditioned Elco Cruisers

A FEW reconditioned Elco Cruisers of all models are now offered for prompt delivery. Each of these boats is thoroughly overhauled as to hull, engine, paint and fittings by expert workmen at the plant where she was originally built.

Elco has kept a careful record of each cruiser from the time of original sale, and is able to inform the second buyer exactly of the service and care each boat has received. These boats carry the same guarantee as new Elco Cruisers—an agreement to make good any defects in workmanship or material which may develop within three months after delivery.

By purchasing reconditioned Elco Cruisers from the Elco Works you are assured of good condition, fair price and unexaggerated representation of facts. All models from 27-foot Marinette to 50-foot Motor Yacht —prices from $1400 up.

COME TO PORT ELCO
247 Park Avenue (at 46th Street)
Telephone: Wickersham 6573
New York City

At Port Elco you may inspect the six new models of the Elco Fleet and obtain prices and complete information on Elco reconditioned cruisers. Or write to Dept MBG-2 for full particulars.

(Plant and Marine Basin at Bayonne, N. J.)

Elco
CRUISERS

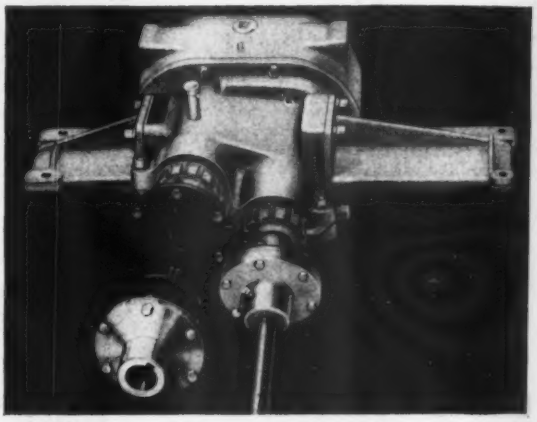
YARD AND SHOP

(Continued from page 122)

CONSERVING VALUABLE BOAT SPACE

Many builders, realizing the advantages to be derived from the installation of the motor in the extreme stern of the boat, are utilizing a device which has been perfected by the Gray Marine Motor Company known as the Gray Vee-drive. In the stock boat line, Dee Wite and Aco are already using them as regular equipment. The gear itself is made up in a compact unit, simple in construction and strongly built. Moving parts have been reduced to a minimum, there being only eight of these of which four are heavy duty, over-sized ball bearings.

The Vee-drive is now in production and ready for immediate delivery in lots of 1 to 500 units. They are built in various sizes suitable for 50, 100, and 150 horsepower at speeds up to 3,300 r.p.m. The joint is available in 9, 12, and 15-inch lengths. A choice of gear ratios is also offered and may be secured in 1 to 1, 19 to 14, or 14 to 19 gears. The number 1 size is capable of handling 200 hosepower at 3,500 r.p.m. This is the size which is used in the Dee Wite number 10 with the Gray high-speed eight, and the efficiency of the gear is best illustrated by the fact that this 19-footer makes 42 miles an hour with a Vee-drive, which is faster than the same motor would drive it in a midship installation.



The Gray Vee-drive, used in Dee-Wite and Aco runabouts, permits motor installation in the extreme stern

Regular equipment includes a double compensating joint which is specially made of rubber to metal contact, requires no lubrication, is perfectly noiseless, and has the additional advantage of acting as a vibration dampener. Special lengths of compensating joints and supporting brackets are available to provide for the various dimensional requirements for different hulls. Port and starboard gears are also available for twin-screw installations. Full dimensional drawings and detailed information may be secured by writing the Gray Company.

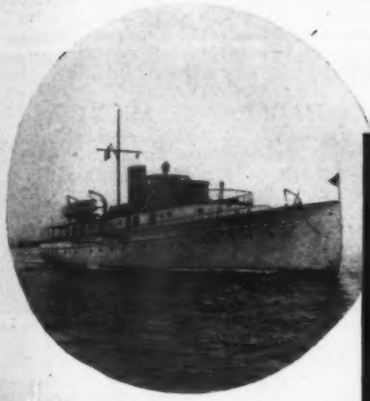
A characteristic example of the new type of craft which is made possible by the use of this drive is the 30-footer designed by Milo Bailey, now practically completed at the Benton Harbor Plant of the Robinson Marine Construction Company. In order to obtain maximum speed with relatively low horsepower and resultant economy, it was necessary to keep all overall dimensions of the hull at a minimum. A suitable design was decided upon and a preliminary analysis made covering the location of cabin, motor and cockpits. It was found then that location of the motor in the stern would be most advantageous and was made possible by the use of the Gray Vee-Drive. Immediately ahead of it a watertight bulkhead was built so that the motor was set apart in its own compartment between it and the transom. The bulkhead forms the after wall of the cabin. This locates the cabin in the midship section of the boat, which for many reasons is most desirable and at the same time it is unencumbered by machinery. The cockpit, accommodating eight passengers, is placed ahead of the cabin, far away from engine noise and vibration with an unobstructed view ahead and to either side. With the engine aft, the action and handling of the new boat in a seaway is much improved since the weight astern acts as a cantilever and reduces pounding to a minimum. This stabilizing effect of the weight aft is particularly helpful in negotiating a bad following sea. The specifications of the new boat are: Length, 30 feet; beam, 8 feet 8 inches; draft, 29 inches, and speed, 24 miles an hour.

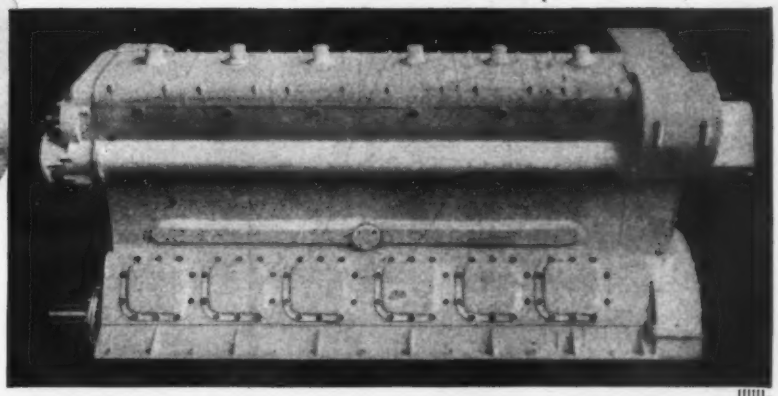
(Continued on page 126)

Advertising index will be found on 3rd last page

IF it's SAFETY you want . . .

you get it in Treiber Diesels





"VARA". 150 ft. O. A. Length, 24 ft. Beam, 6½ ft. Draft; powered with 1500 H. P. Treiber Diesel Propelling Engines (twin 750 H. P.) which drive her safely and quietly at better than 20 knots. At the right: side view of one of VARA'S Treiber Diesel engines.

◆

ENGINES

REVERSE GEAR TYPE

4 cyl. 65 H. P.
6 cyl. 100 to 225 H. P.
12 V-cyl. 200 to 450 H. P.

DIRECT REVERSIBLE TYPE

6 cyl. 225 to 1500 H. P.
12 V-cyl. 450 to 3000 H. P.

ELECTRIC GENERATING SETS

1 to 6 cyl.—7 ½ to 70 K. W.

◆

DISTRIBUTORS

BOSTON, MASSACHUSETTS
Noyes Marine Company
305 Congress Street

NEW YORK, N. Y.
Smith-Meeker Engineering Co.
123 Liberty Street

WASHINGTON, D. C.
Commercial Engineering Co.
1800 E Street, N. W.

MIAMI, FLORIDA
Llewellyn Machinery Corp.
1030 N. Miami Avenue

HOUSTON, TEXAS
Tracy S. Park
Second National Bank Building

LOS ANGELES, CALIFORNIA
Charles E. Smith
504 American Bank Building

SAN FRANCISCO, CALIFORNIA
Thomson Machine Works
225 First Street

VANCOUVER, B. C.
McQuillin Limited
1955 Georgia Street, West

EVER since the first Diesel engine answered the Yachtsman's plea for a power unit free from fire hazard, Diesel engines have been seriously considered by every prospective boat owner and builder who realized the importance of SAFETY to a full enjoyment of yachting.

But SAFETY was to be had only at the sacrifice of SPEED!

Now, however, with the development of the Treiber line of Diesel engines, there has been added to the important factor of SAFETY, the thrill of spray-scattering speed!

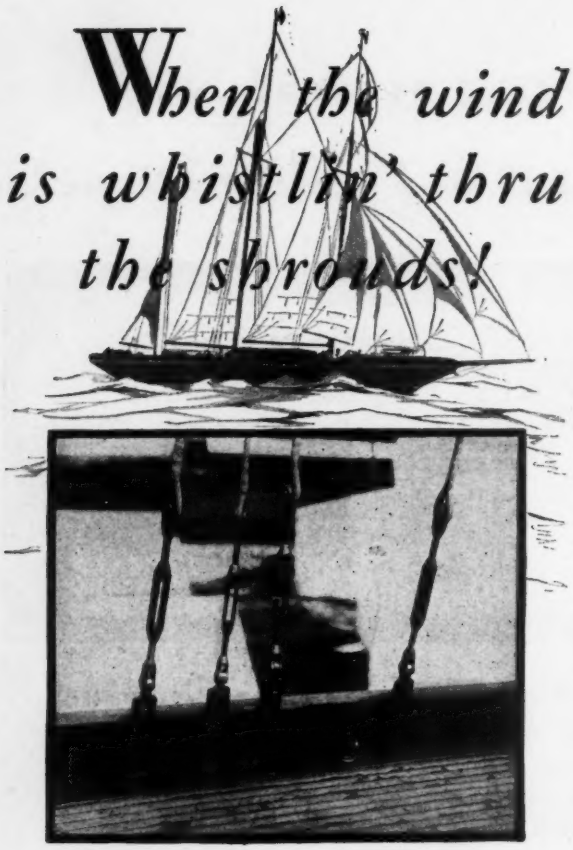
Skillful engineering has given these remarkable Treiber Diesels the additional qualities of economy, cleanliness and the complete cruising comfort to be derived from smooth operation.

If you are interested in learning more about these modern yacht Diesels that scale about one-third the weight and occupy about one-sixth the space of former Diesels, write for the Treiber Bulletins, indicating the size of your present or proposed boat, her power and the speed desired. We shall promptly send you, without obligation, information that should prove a revelation to you of the possibilities for greater yachting enjoyment with Treiber Diesels.

✱ TREIBER DIESEL ENGINE CORP.

DEPT. MB CAMDEN, N. J. U. S. A.

FAST - SAFE - CLEAN - ECONOMICAL - QUIET - SMOOTH



LAUGHLIN HARDWARE

stands severest strain!

Only flawless hardware can stand the strain of screaming gales and lashing seas. That's why three generations of hardy seamen have used only hardware made by Thomas Laughlin of Portland, Maine.

Laughlin hardware is *made* to take punishment . . . strong enough to stand up under tougher conditions than you'll ever run across . . . even constant wetting and drying won't affect it! Advanced methods of design, the choice of best quality materials and a most exacting inspection system account for that extra margin of safety in all Laughlin hardware.

Threaded iron fittings, for example, are virgin zinc hot galvanized in gas-fired furnaces—only *after* threads are cut, protecting *all* exposed surfaces. Yet threads run free and never jam because this is done by centrifugal force. Exact temperature maintenance produces perfect adhesion of zinc to iron . . . the galvanizing never peels!

Turnbuckles . . . anchor shackles . . . chain shackles . . . ring bolts . . . eye bolts . . . every piece of hardware you'll need aboard a boat is made by The Thomas Laughlin Co.

And behind every item trade marked with the Laughlin Triang-L is the experience responsible for most of the improvements in marine hardware today!

The Thomas Laughlin Co.

Marine Hardware — Drop Forgings — Wire Rope Fittings

144 FORE STREET

Portland, Maine, U. S. A.

NEW YORK — CHICAGO — NEW ORLEANS — SEATTLE
SAN FRANCISCO — LOS ANGELES

YARD AND SHOP

(*Continued from page* 124)

NEW YORK DISTRIBUTOR FOR CHRYSLER

Announcement is made by Sutter Brothers, New York City, to the effect that they have been appointed local distributors for Chrysler Marine Engines. They will carry a stock of various size engines for immediate delivery and also a complete line of replacement parts for all sizes. Their office and show rooms are located at 47 Great Jones Street, New York City.

TWO VALUABLE ACCESSORIES

The Savage Boat Company of Boston, Massachusetts, are distributors for a handy little accessory, known as the Savage Universal Bracket. The use of this bracket makes it possible for sail boats, cruisers and runabouts to have instantly available a convenient source of auxiliary power in case of a failure of the main source of propulsion. It is a very simple unit, consisting of but very few parts and makes it possible to attach an outboard motor to a good sized craft regardless of the boat's design. Both bracket and motor may be easily stored aboard the boat when not in use so that there are no unsightly fittings to detract from the appearance of the boat. On sail boats it frequently demonstrates ts value in bringing the ship in in a flat calm or helping it through a winding channel where tacking is a more or less long-winded job. On cruisers or runabouts it makes possible an economical, smooth running power plant for auxiliary use or for emergency purposes. Attached to scows, small barges, schooners, etc., it provides a source of power without resorting to the usual towboat.

The Savage Company are also distributors for the Harley Speed Muffler, which is a new type of silencer recently developed for quieting noisy exhaust lines. The Harley Muffler has many important advantages. Being installed at the extreme outboard end of the exhaust pipe and being fitted inside of the line, installation takes but a few minutes and does not involve disturbing any existing fittings. It is designed on a new principle whereby expansion chambers are dispensed with and a cone shaped deflector is used which is cut in such a manner that a rotary motion is imparted to the gases which are delivered to the open air in a smooth flow without the objectionable staccato sound. Back pressure is completely eliminated so that high-speed motors are able to maintain their r.p.m.

QUIETING THE LARGE YACHT

The disposal of and satisfactory silencing of the exhausts from the big Diesel engines used in the larger yachts is quite a problem, and in the case of five of these, recently built and powered with Winton Diesel engines, it was successfully solved by the use of Maxim Silencers. Four of them were the boats built for Messrs. Sloan, Kettering, Briggs and Fisher of General Motors and the fifth was the one built for Colonel Deeds. Maxim Silencers are built for silencing all kinds of noises, and exhausts and intakes for engines, air compressors, positive pressure blowers, vacuum pumps, etc.

DETROIT SHOW A BIG SUCCESS

Detroit's second annual Motor Boat and Sportsman Show, which was held in Convention Hall from March 29 to April 5, proved successful beyond the expectations of both the exhibitors and the show management. During the week, approximately 65,000 people attended, which was an increase of thirteen percent over the first show held in 1929. This interest on the part of the public proved a great stimulant not only to the exhibitors but to all business men in Detroit, as it was the first exposition held during the last six months which showed an increase in public interest and went a long way to establish confidence in the minds of the public in general.

Exhibitors in the boat department enjoyed a very splendid business with many sales being actually consummated on the floor and the feeling is general that the boat industry will equal its record of business in 1929.

Twenty-five different makes of runabouts and outboard boats were exhibited, seven different makes of cruisers and nineteen engine manufacturers were represented. New models in low priced inboard runabouts were shown for the first time by Chris Smith & Sons and Dee-Wite, and with these two new entries in the field, competition in the low priced class bids fair to prove great stimulants to the industry this year. Among the cruiser exhibitors, several reported actual orders during the week and all were of the impression that there will be splendid business in the higher priced boats during 1930.

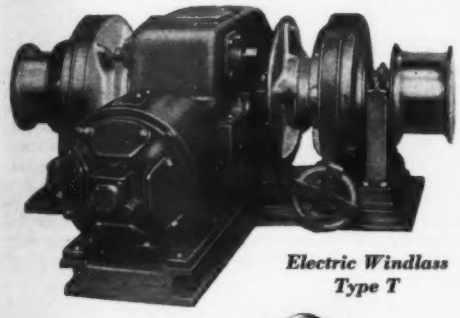
The show space was entirely filled with approximately twenty-five percent more exhibitors than the previous year, among which were several of Detroit's largest retailers who did not participate in the first show.

(*Continued on page* 128)

Advertising index will be found on 3rd last page

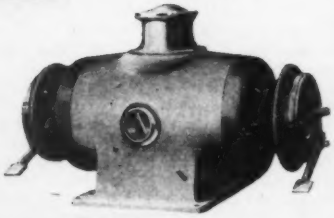
A-E-C O

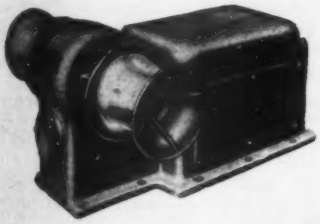
AUXILIARIES



Electric Windlass Type T

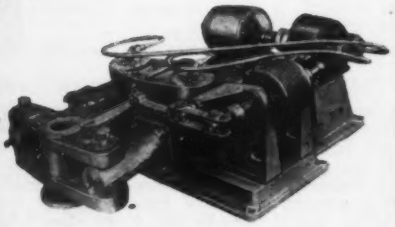
Electric Windlass Type G





Horizontal Electric Hoist

Electro-Hydraulic Steerer



Style Plus Service

Smart boats deserve smart fittings. Their owners deserve deck auxiliaries that make yachting a real pleasure.

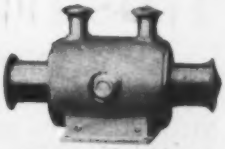
A-E-CO Auxiliaries are both smart and reliable. They banish hard work.

A-E-CO Electric Windlasses and Hoists are compact, well-built machines that can be depended upon to deliver their rated power with a liberal margin to take care of temporary overloads.

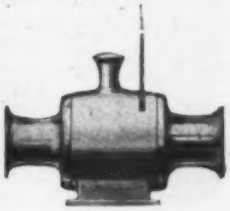
The hand Windlass that is illustrated here lifts the anchor on both strokes of the lever, raising it twice as fast as other types of machines.

The Hand Davit Winch enables one man to hoist either end of a boat with very little effort. Electric Davit Winches can also be supplied.

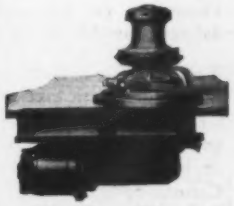
Many other types of machines for yachts and motorboats are described in our new catalogue. It's yours for the asking.



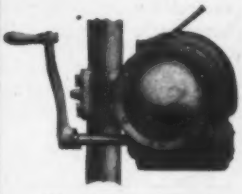
Boat and Sail Hoist Type D



Hand Windlass



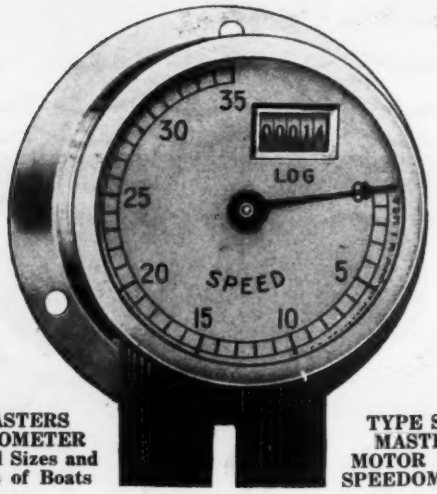
Motorboat Electric Windlass



Hand Davit Winch

AMERICAN ENGINEERING

AMERICAN ENGINEERING COMPANY, 2419 ARAMINGO AVENUE, PHILADELPHIA



MASTERS LOGOMETER for All Sizes and Styles of Boats

TYPE SR35 MASTERS MOTOR BOAT SPEEDOMETER

TELLS TRUE WATER SPEED AND DISTANCE

This is one of the Masters Line of Marine Speedometers in which there is an instrument suited to every size and style of craft afloat from tiniest outboard to giant liner.

The type SS Logometer which indicates speed only and types SR which register distance as well as indicating speed are suited to all speed boats where the instrument is not to be located more than four feet above the water line.

Types SS15, SS20, SS35, and SS50 indicate to 15, 20, 35 and 50 land miles per hour, knots, or kilometers per hour (as set). Complete, ready to install—delivered in U. S. A. - - - - - - - - - $20

Types SR15, SR20, SR35, and SR50 indicate and register speed and distance in land miles, sea miles or kilometers (as set). Complete, ready to install—delivered in U. S. A. - - - - - - - - - $30

Type CR for cruisers and all large power boats may be installed with instrument at any elevation. Types CR15, CR25, and CR40 indicate and register speed and distance to 15, 25 and 40 land miles, sea miles or kilometers per hour (as set). Has no shafts. Cannot be fouled with dirt or debris. Easy to install. Delivered in U. S. A. - - - - - - - - - $100

Type NR for ocean liners and large yachts adapted to extended navigation, fully compensated for temperature and barometric changes. Prices on application.

All Logometers are in Chromium plated copper cases which may be mounted flush or upon instrument board. Registers show distance to one-tenth land mile, sea mile or kilometer (as set).

Prove your new boat, improve your old boat **with a MASTERS LOGOMETER**

The Irvin W. Masters Company

25 Halsted St., East Orange, New Jersey, U. S. A.

Tel. Oregon 0180 Cable Address: Logometer East Orange, N. J.

YARD AND SHOP

(*Continued from page* 126)

BANFIELD OUTPUT FOUR TIMES THAT OF 1929

With deliveries already made and the number of orders for future delivery booked far in excess of the same period last year the Banfield Sea Skiff Works Inc., announce that their 1930 production will be at least four times that of 1929. The opening of their large new showrooms in New York City and the appointment of numerous dealers have been a large factor in the increased interest in Banfield boats but probably the most direct cause of the increase is resulting from the popularity of the new Sea Skiff sedans and runabouts which were recently announced. These are the first boats of their type to be brought out on a production basis and are causing a great amount of interest among the sportsmen who are interested in rough water speed boats.

CHANGES IN JOHNSON PERSONNEL

O. J. Harms, former head of the industrial division of the Johnson Motor Company, Waukegan, Ill., has been promoted to sales manager of that concern, according to the announcement by E. S. Barber, vice-president. G. M. Babst, former sales manager of the Southern division, was made sales promotion manager.

Mr. Harms' career has led him through considerable foreign sales experience with an engineering background. Mr. Babst was formerly associated with the automotive field.

DODGE DISTRIBUTION EXPANDS

In its rapid creation of a world-wide merchandising and distributing organization for Dodge marine runabouts and cruisers, the Horace E. Dodge Boat and Plane Corporation of New York, Detroit and Newport News, Virginia have announced the appointment of about seventy distributors and dealers not only in the United States but many foreign countries The list includes experienced merchandisers of marine products as well as a large number of firms and individuals now or formerly engaged in the distribution of the better types of American automobiles. All Dodge distributors and dealers who are also merchandising motor cars are setting up entirely separate organizations to sell and service Dodge boats.

NEW OUTBOARD RECORDS

The change in the Outboard Racing Rules which became effective on January 1 have made it exceedingly difficult under the new weight restriction rules to better the records made last year. The lighter boats were able to travel at considerably greater speeds than the newer heavier craft, and it does not seem likely that the marks attained for some time will be sufficiently high to wipe out those of last year's creation. A recent regatta at Sacramento, California, on March 30, set up a number of records which stand as having been made under the 1930 rules. These, however, do not come up to the speed records established last year. The races at Sacramento were run under the auspices of the Outboard Motor Association of Northern California and under the sanction of the American Power Boat Association. The following new marks have all been approved.

TEN MILES IN COMPETITION

Class Div.	No.	Name	Driver	Motor	Boat	M.P.H.
C- I	C-202	Kitty II	Harold Morehouse	Evinrude	Elsinore	37.267
D-II	C-192	Sleepy	Franklin Anderson	Johnson	Wilber	40.560

MILE TRIALS—STATUTE MILES

A-II	C-253	Rea	Keneth Dyer	Johnson	Sulmock	22.662
B- I	C-185	Buster III	H. B. Jeffries	Johnson	Sulmock	35.294
B-II	C-260	Flying Cloud	Harry Arnold	Johnson	Sulmock	36.735
C- I	C-202	Kitty II	Harold Morehouse	Evinrude	Elsinore	38.298
C-II	C-212	Col. Stoever	Joe Bansi	Evinrude	Elsinore	39.561
D- I	C-215	T.N.T.	Gordon Colberg	Johnson	Self	40.909
D-II	C-222	Lazy	Francis Wilber	Johnson	Wilber	41.860

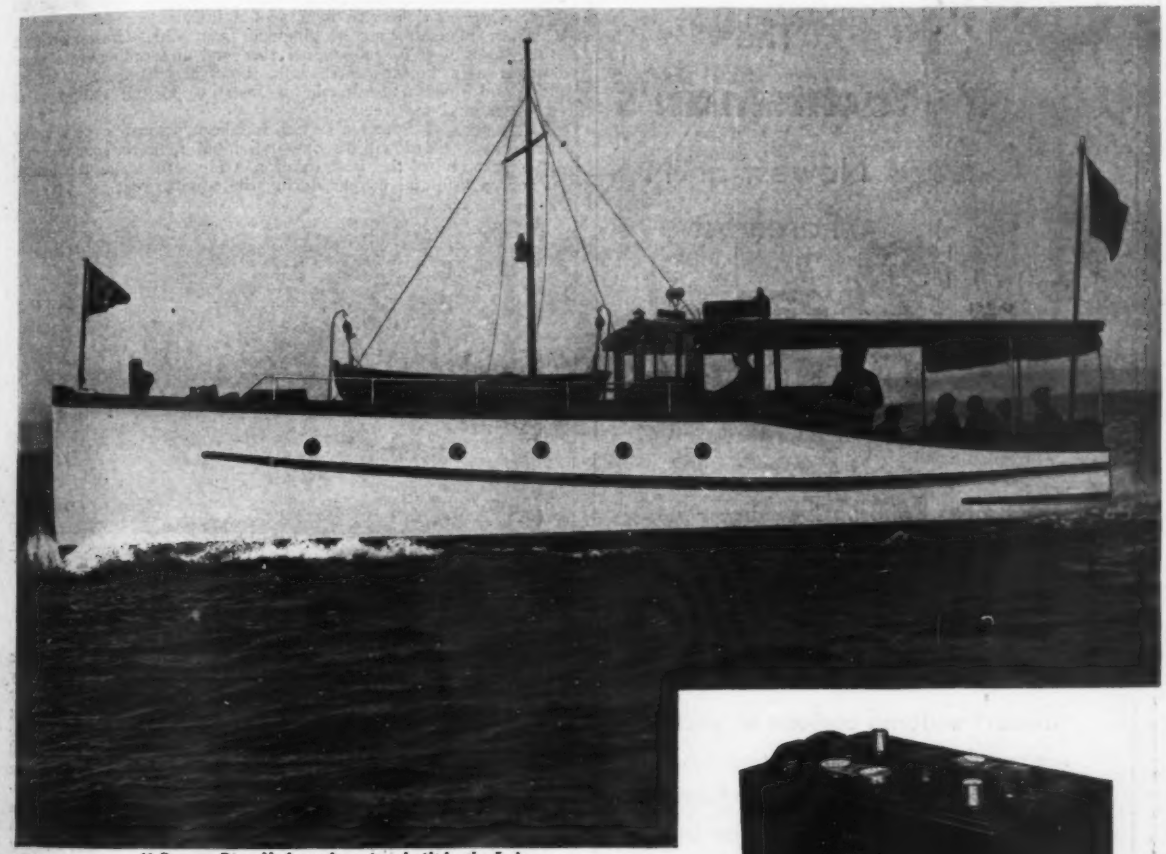
IMPROVEMENTS IN FLUSHING

In keeping with the increased interest in small pleasure boats, Bruno Beckhard's yard in Flushing, N. Y., has not only expanded, but has greatly increased its facilities for handling all forms of special service work. Motor sales and repair departments are housed in a separate building fronting directly on Northern Boulevard, while the Lyman tenders and sea skiffs as well as the special hulls for which the plant is noted have a new large building of their own adjoining the enlarged dock. A new runaway connects this building with the 12-foot channel, while large doors make it possible to drive trucks directly to the edge of the water. Facilities are provided not only for outboards, but for inboard runabouts as well.

(*Continued on page* 130)

Advertising index will be found on 3rd last page

Tests by disinterested boat builders have proved the value of this battery . . .



"Dream Boat." A stock cruiser built by the Lake Union Dry Dock and Machine Works, Seattle.

Two Willard RJ-4-15 batteries in series are used for starting service in the "Dream Boat."

The American boat builder is a scrupulous battery buyer. With the performance of his own product at stake he will use only that battery which demonstrates its value before his own eyes, which satisfies the standards of long life and dependability that he sets for every item of equipment he buys.

His selection of Willard batteries for the original equipment of his boats, therefore, is backed by sound engineering knowledge. The type and size of Willard battery he uses is that which best fits the individual job. You can make no better choice when you replace your battery than to duplicate his specification.

Willard STORAGE BATTERIES

CLEVELAND·OHIO

"SALTAIR" "SALTAIR"

BROOKS
UNIFORM CO.

The
Yachtsman's
Newest and
Foremost
Apparel
Outfitters

THE Brooks Uniform Company—one of the largest uniform outfitters in the world—now presents "Saltair" yachting apparel and accessories for Owners, Members, Officers and Crew.

"Saltair" uniforms conform to yachting regulations and are distinguished for fine tailoring, dependable fabrics and the Brooks' policy of "the best at lowest prices."

A catalog of Brooks "Saltair" Yachting Apparel will be sent upon request.

OWNERS' SUITS, CAPS AND CLUB EMBLEMS ALWAYS IN STOCK

Brooks Uniform Co.

143 West 40th Street
(Opp. Metropolitan Opera House)
NEW YORK CITY

Telephone: PENnsylvania 5580

"SALTAIR" "SALTAIR"

YARD AND SHOP

(*Continued from page* 128)

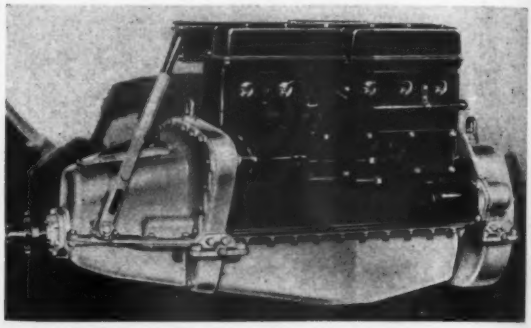
WATER TAXI SERVICE MANUAL

For the past three years Chris Smith & Sons Boat Company at Algonac, Michigan, have made an intensive study of the field of water taxi service, and they now have prepared a manual of Water Taxi Service.

This book is the only one of its kind on the market today and is complete from the first step through the last. Every procedure from selecting a location for a water taxi service all the way through to how much to charge and how to rent the boat is discussed thoroughly and clearly. This book will enable an amateur who has never done anything of the kind before and knows nothing about motor boats to set up and operate his own water taxi service in a profitable manner.

These manuals may be obtained from Chris-Craft merchants the world over for a nominal sum and any problems of water transit may be discussed with these merchants who are all fully informed and capable of assisting in the setting up of a water taxi service.

This type of Summer service has been proven to be a money maker and there will be one individual in each community to step in and get the best location. He will make for himself a very substantial income during the coming year.



Gray's new Six-90 is a powerful overhead valve machine of 95 h.p.

THREE NEW POWER PLANTS

Three new marine engines of advanced design and superior construction are offered by the Gray Marine Motor Company and are now in production. Their model Four-41 is a 3⅛ by 4¼, 152 cubic-inch machine capable of developing 4[illegible] h.p. at 2,900 r.p.m. It has been specially designed and built to fulfill the requirements of light fast runabouts where sustained high speed operation is essential. The Four-41 weighs 380 pounds with open flywheel and is available with enclosed flywheel with slightly increased weight. This new model is strong, fast and light and is especially well adapted to the little 17 and 19-foot runabouts which are becoming so popular, including those who are adopting the recently developed stern drive. The Four-41 is also available without the clutch and reverse gear in another model known as Four-41-B, with a special built-in one-way clutch suitable for direct attachment to several types of stern drive gear. Both of these models are standard equipment for 1930 in several well-known fast stock runabouts.

Model Four-44 is generally similar in outward appearance to the Four-41 and has been introduced to meet the demand for a larger edition of the Gray Four-30 model, embodying the reliability, stamina and ruggedness of that engine besides providing greater displacement, increased power, yet requiring practically no more space. The Four-44 has a bore and stroke of 3⅛ by 4¼ inches with a piston displacement of 200 cubic inches. It has been designed as a heavy-duty engine for speeds up to 1,400 r.p.m. and the oversized bearings and extra heavy 2¼-inch crankshaft will make a definite appeal to owners of heavy-duty boats. In substantial runabouts and cruisers, engine speeds up to 2,800 r.p.m. on direct drive, and 2,600 r.p.m. on reduction gears are available, as this motor will also be built with aluminum pistons, high speed camshaft, and special carbureting and manifolding for high-speed work. Model Four-44 is only 45⅝ inches in length and weighs 660 pounds. The Paragon reverse gear is 50% larger than is generally recommended for motors of its horsepower.

The other new offering is a 6-cylindered model, the Six-90, capable of producing 95 horsepower. It is somewhat different in

(*Continued on page* 134)

A Complete Inboard Motorboat For All the Family at $1095—

With Self-Starter, Wheel Steering, Safety Glass and Automobile Comfort

NEW SPEED—28 MILES PER HOUR
SAFETY LENGTH—FULL 17 FEET
MORE MILES TO THE GALLON

WOULD you like to own a new, fast, completely-equipped inboard motorboat that all the family can drive this summer? With all the style and good looks of a big $3,000 runabout? And faster, probably, than anything of its size or class in your neighborhood? Strong, safe and seaworthy, and economical . . .

That's what the new Dunphy Flying Dutchman is—the achievement of 64 years of boatbuilding, and more honest value for your money than you could ever buy before. Follow us carefully while we give you a few facts about this remarkable boat, and see if anything ever equalled it: (1) Double framework on bottom, all strong white oak. (2) African mahogany planking throughout. (3) All copper and brass fastened. (4) Custom-built beauty—long life. (5) Expensive, durable upholstery. (6) Automatic self-baler. (7) 2" extra width in front cockpit. (8) Extra room around motor. (9) Unusually wide stern—better riding qualities. (10) 28 m. p. h. (11) More miles to the gallon. (12) Shatter-proof glass windshield. (13) Dependable safety—length 17ft. (14) Plenty of room (beam 5'2") for five. (15) Complete radio as extra equipment. *Your order can be filled immediately.*

Driving the Flying Dutchman is an entirely new sensation. You get all the comfort and substantial feeling of a big $3,000 runabout. It *feels* safe and it is safe. And its unusual speed is a new delight you can't appreciate till you've stepped on the starter. Orders can be filled at once.

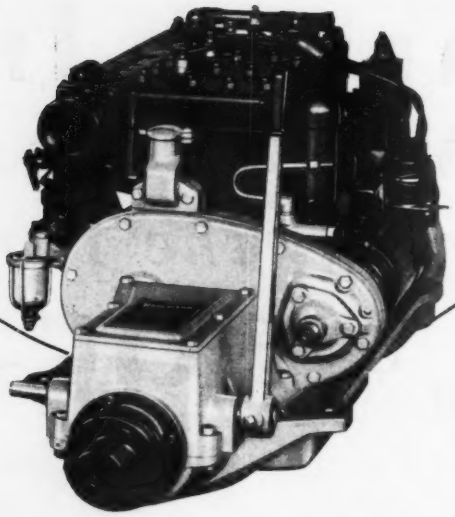
What Are Your Boat Problems?
64 Years Experience Qualifies Us To Help You—
Send for Free 1930 Catalog

Write to us today. Tell us what you need. We'll tell you what boat and equipment to use. 64 years' building of all types of boats and motorboats qualifies our Personal Service to give you good reliable advice. Address Dept. MMB. Dealers: Write!

Safety **DUNPHY**

BOAT MANUFACTURING COMPANY, Eau Claire, Wisconsin

In Canada: **Paul Paquet, 50 Maple Avenue, Quebec**



The

UNIVERSAL BLUE JACKET

LIGHT-WEIGHT ⌣ HIGH SPEED FOUR

Equipped with JOES GEAR

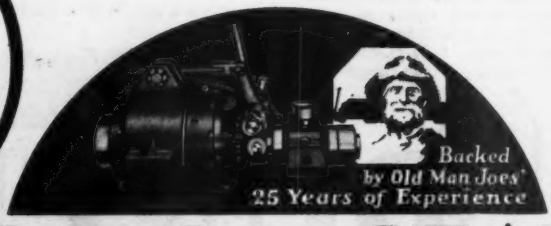
The BLUE JACKET—designed primarily for runabouts under twenty feet, weighs approximately three hundred pounds, and Mr. J. B. Eck, V.P. of Universal Motor Company tells us, makes a wonderful job equipped with Joes high speed gear. This compact, high-speed motor has been built to run by the hour at 4000 R. P. M., and is guaranteed by "Universal."

On the BLUE JACKET, as on all the late high-speed, high-powered Universals—JOES GEARS are Standard Equipment.

THE SNOW & PETRELLI MFG. CO.

19 Fox Street **New Haven, Conn.**

52 Engine Builders Standardize on



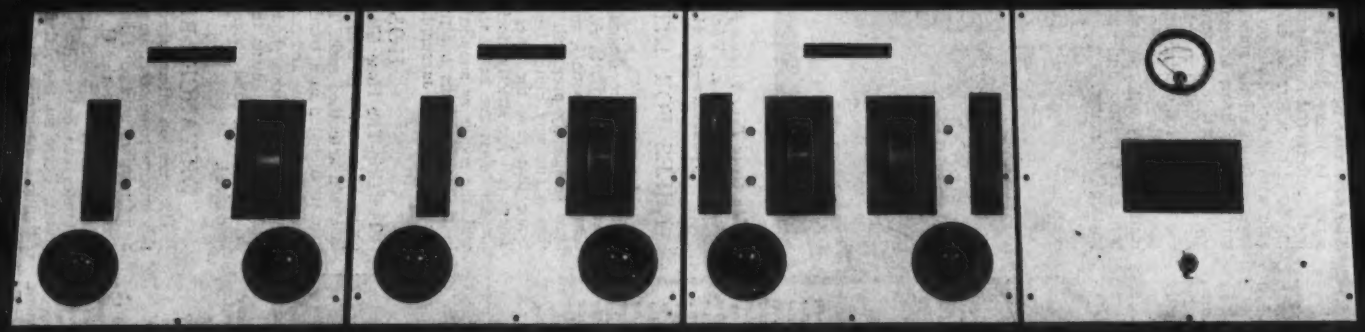
Send for Bulletin

JOES FAMOUS REVERSE **GEARS**

REVERSE 80%~88% *of Motor Speed*

Advertising index will be found on 3rd last page

A NEW POWERFUL
SHORT WAVE RADIO



BY

C.R. LEUTZ INC.

Request Latest Literature Now

C. R. LEUTZ, INC.
ALTOONA, PA., U. S. A.
Cables "EXPERINFO"

EUROPE
BALDWIN M. BALDWIN
1 BOULEVARD HAUSSMANN
PARIS, FRANCE
CABLES "EXPERINFO" PARIS

WEST COAST
B. J. HOWDERSHELL
DETWILER BLDG.
412 WEST SIXTH ST.
LOS ANGELES, CALIF.

STURGES EQUIPMENT

Makes Boat Handling Easy

The Sturges Anchor Hoist, Dinghy Line Control, and Jiffy Mooring Snap are specially designed to simplify boat handling and increase boating pleasure —they are better than signing on a paid hand.

STURGES COMBINATION ANCHOR HOIST DINGHY DAVIT AND WINDLASS

BREAKING and weighing the anchor, a difficult task at best, especially when buried deep in a hard bottom, become simple operations with the aid of the Sturges Anchor Hoist. Simple and durable in construction. Easily installed and operated. Lifts the anchor clear of the bow, where swinging flukes cannot dig into the planking, and mud can be washed off before the anchor is brought inboard. For short stops, anchoring with the light service line is usually sufficient, without bothering to get out your heavy anchor line. Dinghies and outboard motors are handled with equal facility. Used separately, the windlass has tremendous power for kedging off a sand bar or for hauling out. Ship-shape in appearance, the davit, windlass and crank may, if desired, be quickly unshipped and stowed away, leaving only the base on deck.

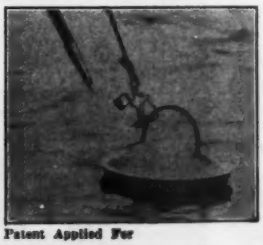
Sturges Anchor Hoist is substantially constructed, heavily galvanized, and made in three sizes for any type anchor up to 100 lbs. Furnished entirely of brass at slight additional cost.

Special hoists for outboard motors with capacities of 200, 300 and 400 lbs.

Model No. 2 with 3 speed transmission for anchors 60 to 100 lbs. Low speed gives powerful leverage for breaking the anchor loose from mud bottom. Second speed (on which the handle is shown) is normally used for hoisting the anchor. High speed or direct drive on main shaft is for quickly reeling in the slack of the rope. Also has poweful brake for lowering anchor into water.

STURGES JIFFY MOORING SNAP

WITH the Sturges Jiffy Mooring Snap, there is no longer any excuse for missing a mooring, falling overboard, or losing a boat hook. The Jiffy Snap is easily fitted to one end of a boat hook by means of a ferrule, and is attached to the bitt with a temporary mooring line. With the line extended along deck to the wheel, moorings are easily made single-handed, simply by hooking the Jiffy Snap on the ring of the mooring buoy and releasing the pole with a jerk. Indispensable aboard sail boats.



Patent Applied For

The Jiffy Snap on the buoy ring, with the pole released.

Cable automatically winds up and takes in slack.

STURGES DINGHY LINE CONTROL

FOULING the dinghy line around the propeller in reversing or manoeuvering is an impossibility with a Sturges Dinghy Line Control. Slack is automatically taken up on a spring-operated drum and kept where it belongs—on deck instead of loose under the stern.

Let us give you full particulars on Sturges Efficient Boating Aids. Write today for illustrated literature

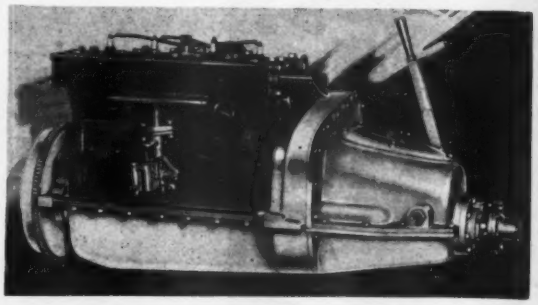
STURGES ANCHOR HOIST

3 Kensington Road **Bronxville, N. Y.**

YARD AND SHOP

(*Continued from page* 130)

design than the other motors, being of the overhead valve type, a great number of which were successfully produced by Gray some years ago. The bore and stroke of this motor is 3⅞ by 4½, with a piston displacement of 318 cubic inches. It develops its rated power at 2,600 r.p.m. and is so designed and carbureted as to produce its greatest torque at speeds from 1,600 to 2,000. The particular field to which this motor is best adapted includes service in heavy 12-mile cruisers, 40-foot work boats, fishing boats, substantial runabouts, and all sorts of heavy hulls requiring large propellers for efficient propulsion. This model is available with either single or double distributor or Bosch magneto, together with all the standard Gray safety and convenience features such as flame arrester, drip pan, listing rings, oil and gas tight construction throughout and full pressure lubrication to all bearings. Valve mechanism and rocker arms on the Six-90 are designed for quietness throughout the entire speed range and the entire valve assembly is fully enclosed. The motor has 7 main bearings with an unusually large bearing surface totaling 98 square inches. Full pressure lubrication is supplied to all parts of the motor.



The Gray Four-41 and Four-44 are generally similar in external appearance. The 41 is a high speed motor for fast runabouts—the 44 is suitable for heavier duty

RULES FOR INTERNATIONAL 335-INCH CLASS

At the time the design for the little 20-foot International Class hydroplane U. S. A. was prepared and published in February MoToR BoatinG, the rules to govern the racing had not been completely prepared. In the article, Mr. Atkin suggested that a one way clutch be used in order to reduce the weight. Since that time the rules have been completed and approved. These call for strictly stock motors and since all motors eligible for this class are fitted with reverse gears these must be used with the engine as supplied. Some slight changes are permitted in the power plants but these do not include any alteration to the reverse gears as supplied by the engine builders.

HOSE CLAMPS

The Grip-Tite Hose Clamp consists of a band upon which is embossed a series of transverse ridges and depressions, forming in effect, a toothed rack. The screw engaging with this toothed band is mounted in a trunion. In applying, band is slipped over any part of the hose and compressed by hand. Allowing the screw to swing into position shown in cut and taking a few turns with a screw driver, tightens the band. Screw operating as a worm drive, feeds the band under the screw threads until it is as tight as desired.

DISTANCES BETWEEN U. S. PORTS

The question often asked as to how far it is by water from this city to some other port in the United States is answered in a publication entitled Distances between United States Ports recently issued by the U. S. Coast and Geodetic Survey. This publication of 44 pages contains 30 tables by means of which distances can be readily ascertained between more than 30,000 points. Ports on the Atlantic, Gulf, and Pacific coasts, on the Atlantic coast inside route, on the Hudson, Mississippi, and Ohio Rivers, on the Great Lakes, and in the Virgin Islands, Porto Rico, Philippine Islands, and Hawaiian Islands are included. To make the publication more complete, the distances between United States and a few of the more important foreign ports are listed. Mariners and others interested in the factors affecting transportation by water will find this publication of interest.

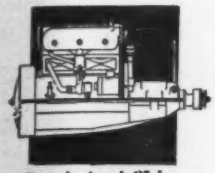
Copies of this publication may be obtained from the Director, Coast and Geodetic Survey, Washington, D. C.

(*Continued on page* 136)

Advertising index will be found on 3rd last page

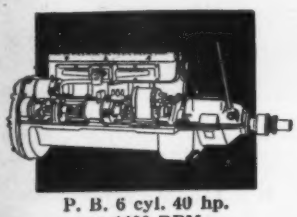
Rx *For a carefree Summer . . .*

Any Standardized Boat A Palmer Engine

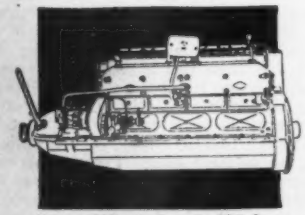


P. A. L. 4 cyl. 25 hp. at 1200 RPM

Little Huskie 15 hp. at 1500 RPM



P. B. 6 cyl. 40 hp. at 1400 RPM



Green Witch 6 cyl. 150 hp. at 1400 RPM

Put together . . . and cruise to your heart's content

The happy choice of a Palmer Engine equipped with a Palmer Clutch will endow your new boat with a vigorous constitution and a carefree disposition. Powerful . . . faithful . . . dependable . . . it is always at your service; always ready to obey.

For over thirty-five years Palmer Engines have made boating a pleasure. Hundreds of yachtsmen have replaced their old engines with a Palmer, and when they buy a new boat they insist that Palmer Power be installed.

The Palmer Brothers have made marine engines their lifelong business. Every engine they manufacture must pass the most rigid tests before it is permitted to leave the shops. Insist on a Palmer Engine!

PALMER BROS. ENGINES, INC.
Cos Cob, Conn.

PALMER

DISTRIBUTORS

New York, N. Y.
80 Third Ave. between 12th and 13th Sts.

Baltimore, Md.
814 E. Pratt St.

Philadelphia, Pa.
631 Arch Street

Portland, Me.
Portland Pier

Boston, Mass.
Rapp-Huckins Co.
128 Beverly St.

Portland, Ore.
Oregon Marine and Fisheries Supply Co.

Norfolk, Va.
Gas Engine & Boat Corp.

Seattle, Wash.
Pacific Marine Supply Co.

Vancouver, B. C.
V. M. Dafoe, 1100 Powell St.

Jacksonville, Fla.
122 South Ocean St.

Tampa, Fla.
Foot of Whiting St.

Miami, Fla.
R. E. Schubert, 1008 North West 8th St. Road

Biloxi, Miss.
Kennedy Bros.

Let Us Send You This Book!

The new Yachtsman's Guide is the only complete, up-to-the-minute yachting encyclopedia published. It contains 500 pages crowded with just the sort of practical information every motor-boat man wants. A copy of this invaluable volume should be aboard every boat and in the library of every yachtsman's home—on hand for immediate reference at all times. The following list gives you merely a partial glimpse of the wealth of material this book contains. Read it—think how it would help you!

- **All about engines—installation, ignition, vaporization and operation.**
- **Hundreds of helpful hints on outfitting and overhauling.**
- **More than 100 Motor Boatmen's Charts for the entire Atlantic Coast, Great Lakes and Canada.**
- **Marine Laws—Rules of the Road at Sea.**
- **What to do if the motor stops unexpectedly.**
- **Times of high and low water and direction and velocity of tides in all ports.**
- **Latitude and Longitude Tables, giving locations of over 1,000 points.**
- **All kinds of marine codes, flags, etc.**
- **Details of hundreds of cruise routes, description of ports and channels, marine signals, codes, flags, etc.**
- **Characteristics of lights, buoys, fog signals, etc.**
- **Numbering Law—How to obtain numbers for your boat.**
- **What to do in a storm—to prevent collisions.**
- **How to organize a yacht club—Constitutions and By-Laws and many other helpful features.**

Send for Your Copy Today

"The Yachtsman's Guide" sells regularly for $1.50. Twelve issues of MoToR BoatinG would cost you $5.00 at single-copy prices. But by taking advantage of our special offer at once, you can have "The Yachtsman's Guide" and a whole year of MoToR BoatinG, for $3.50. (Two years' subscription including Yachtsman's Guide, $5.00.)

—— —— —— ——MAIL THE COUPON NOW—— —— —— ——

MoToR BoatinG, Dept. 530,
57th Street at 8th Avenue, New York, N. Y.

I desire to take advantage of your Special Offer and get a copy of "The Yachtsman's Guide" with my subscription to MoToR BoatinG for One Year at $3.50. (Two years' subscription including Yachtsman's Guide, $5.00.)

Name .....

Address .....

City..... **State**.....

(Remit now and an extra issue will be added to your subscription.)

Regular subscription price $3.00 *a year; two years* $4.50
Postage outside of U. S. and Canada $1.00 *extra a year*

YARD AND SHOP

(*Continued from page* 134)

MANY RUNABOUTS BEING SHIPPED

The Aeolian Company announces that the production of Aco Seaboats in their Neponset plant is now well under way. Shipments of show boats and demonstrators to dealers are going forward daily and orders are coming in well in advance.

A splendid and effective distribution and dealer plan has been worked out and many prominent dealers are already featuring Aco boats as their runabout line. Owing to the unusual construction and seaworthiness incorporated into these hulls they are quickly proving themselves in open and coastal waters where their performance shows to best advantage. Seasoned yachtsmen are instantaneous in their acclaim after inspection and particularly so after an actual water demonstration.

The Aeolion Company contends that the round bilges, continuous steam bent frames, hogging girders and other superior features of rugged construction in Aco boats will add years of useful life to these hulls and that their soft action in rough water will result in lower depreciation as well as lower upkeep expense. The motor is located aft and drives through a Gray Vee-reduction gear for greater propeller efficiency. This makes possible an undivided cockpit wherein the passengers are grouped sociably together. Aco Seaboats are build in 16, 20 and 26-foot models with power ranging from 41 to 140 horsepower showing speeds of 25 to 40 miles per hour.

All models are beautifully finished with solid mahogany decks and planking, nickel or chromium plated fittings and full equipment.

The Aeolian Company are opening a boat salon in Aeolian Hall at Fifth Avenue and 54th Street where all Aco Seaboats will be placed on display. The various models are also available for demonstration in New York waters.

One of the 26-foot Aco Seaboats running smoothly at 30 *miles with Gray reduction drive*

THE CHOICE OF MANY

Evidence of an outstanding dominant position in any line of industrial endeavor becomes particularly convincing when those upon whom the widespread use of a product is dependent are fortified with the technical knowledge and facilities necessary to test and prove the merits of the product in question.

To have reached a position in any competitive field comparable with that enjoyed by Duplex marine engine oil in its sphere of activity is in itself an accomplishment. When one realizes that such a position has been reached only after scores of competent engineers, looking upon it from an impartial viewpoint, have tried, tested and experimented with Duplex marine engine oil, the accomplishment becomes doubly significant.

The widespread use of Duplex marine engine oil among boat owners might not, in itself, be so significant. But the fact that such use is backed by the recommendations of engineers responsible for the production of 85 per cent of all fine standardized boats and marine engines, should leave nothing to be questioned.

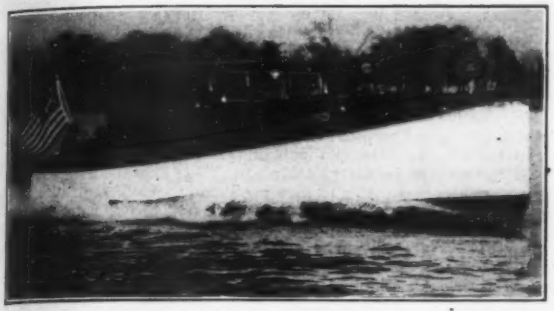
A glance at the list of engines which carry instruction plates recommending the use of Duplex marine engine oil reveals many of the leaders in the engine building industry: Chris Craft, Caille, Gar Wood, Kermath, Niagara, Scripps, Vimalert. In addition, plates recommending the use of Duplex marine engine oil are found on every boat built by Banfield, Chris Craft, Corsair, DeeWite, Dodge, Down Easter, Fairform Flyer, Fleetwing, Gar Wood, Hadley, Johnson, Liggett, Matthews, Richardson, Robinson, Sea Lyon, Vinyard, Varney and Wheeler.

"This progress," according to Lt. Commdr. Henry H. Hower, President of the Enterprise Oil Company, makers of Duplex marine engine oil and Kasson waterproof grease, "has been directly dependent upon our close working with marine engineers, building our oil up to a standard where it would provide the best possible lubrication for marine engines—never down to a price where it would appeal because it was cheap."

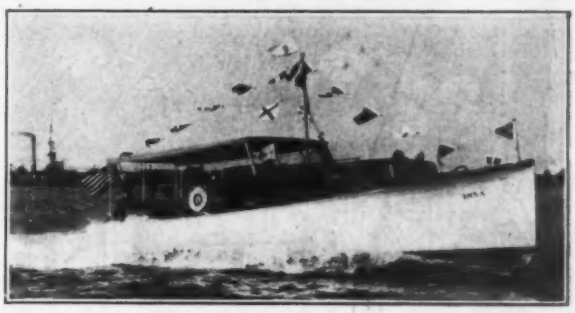
(*Continued on page* 138)

Advertising index will be found on 3rd last page

The CORSAIR Fleet



The Corsair 36 foot Enclosed Bridge Deck Model has a speed of 22-24 m. p. h. and is priced at $14,800, fully equipped



The Corsair 36 foot Open Model is identical in every respect to the Enclosed Model except for the deck house. It is priced at $12,500, fully equipped

The Corsair 30 foot Cruisader is a slightly smaller replica of the 36 footer. It has a speed of 18-20 m. p. h and is priced at $6,500

Here are three great, fast cruisers whose every line fairly sings a siren song of the sea. They're "salty" as anything that ever sailed out of Salem in the days of the clipper ships, yet smart and swanky as a Paris frock fresh from the bandbox. There are roomy open cockpits forward and aft . . . a cabin whose four deep bunks invite restful sleep by night and lazy indolence by day . . . a tiled and nickel-plated toilet room . . . a round bottom hull properly designed by a prominent naval architect insuring seaworthiness and comfort. Everything to lend that indefinable atmosphere of distinctive and distinguished completeness, without which no craft is a success to its owner. Why don't you let us send you a set of interesting photographs?

CORSAIR BOAT COMPANY

Offices: 1030 Buhl Bldg., Detroit ◆ *Yards:* Trenton, Mich., on the Detroit River

DISTRIBUTORS

METROPOLITAN, NEW YORK
S. Clyde Kyle 1775 Broadway

BOSTON, MASS.
Atlantic Radio & Marine Co., Inc.,
20 Brookline Avenue

CHICAGO, ILLINOIS
Corwith Cramer 228 N. LaSalle Street

CORSAIR CRUISERS

TOLEDO, OHIO
E. M. Littim 2503 Broadway

SYRACUSE, NEW YORK
Chapin Buick, Inc. 375 Onondaga St.

PACIFIC COAST REPRESENTATIVE
S. Clyde Kyle, Rialto Bldg. San Francisco, Cal.

In all parts of the world people marvel at the Branford Midget Lighting Plant . . . because it is so light and compact that it can be easily carried . . . because it can be installed in the smallest possible space . . . because it is idealy suited for use aboard yachts formerly considered too small for lighting plants . . . and finally because the price of the 6 volt plant is only 140 dollars. . . .

Malleable Iron Fittings Co.
BRANFORD CONNECTICUT

YARD AND SHOP

(*Continued from page* 136)

DART OPENS WESTERN OFFICE

Dart Boats, Inc., of Toledo, Ohio, manufacturers of Dart runabouts, have announced the opening of a Pacific Coast office under the direction of Sherman Hayes. The new Dart Company branch is located at Los Angeles and will serve as the base of operations on the West Coast. Sherman Hayes comes to Dart as Western manager and is particularly well fitted for this new position. Prominently identified with the sales end of the automotive industry, Mr. Hayes' past connections with the Willys-Overland Company and the DeSoto Company in California have served to familiarize him with the various sales problems presented by this western territory. With the wealth of experience and background which he brings with him, the future outlook for Dart on the Pacific is extremely bright indeed.

NEW PORTABLE ELECTRIC SAW

The Van Dorn Electric Tool Company of Cleveland, Ohio, announces, as an addition to their line, three sizes of portable electric saws, the 6-inch, 8-inch and 10-inch, the size representing the diameter of the circular saw blade that is used. They have been developed to increase production sawing of all kinds of wood and with the use of an abrasive disc to cut slate, marble, asbestos, transite, tile, porcelain, etc.

These saws are driven by universal motors operating on A. C. and D. C. and conform to the most modern safety practices, incorporating an automatic safety switch and automatic telescopic guard.

These saws are fully adjustable, having thumb screw adjustments for regulation of depth of cut, width of cut and a graduated adjustment for beveled cuts—all at the operators' finger tips.

The depth of cut is adjustable and the maximum depth of the 6-inch size saw is 1¾ inches, 8-inch size, 2½ inches and 10-inch size, 3½ inches.

The Matthews 46 Sport Cruiser used by Franklin Simon at Lake Worth, Florida, for deep sea fishing. Twin 200 h.p. Sterling Petrels wrive it 88 m.p.h.

CANOE ROUTES TO HUDSON BAY

Many rivers, both large and small, find their way across the great horse-shoe-shaped plateau which surrounds Hudson Bay. Following the course of some of these streams in a canoe, the outdoor man is sure to find excellent opportunities for fishing and hunting, besides experiencing the thrill of navigating unfamiliar waters and all the pleasures of camping out.

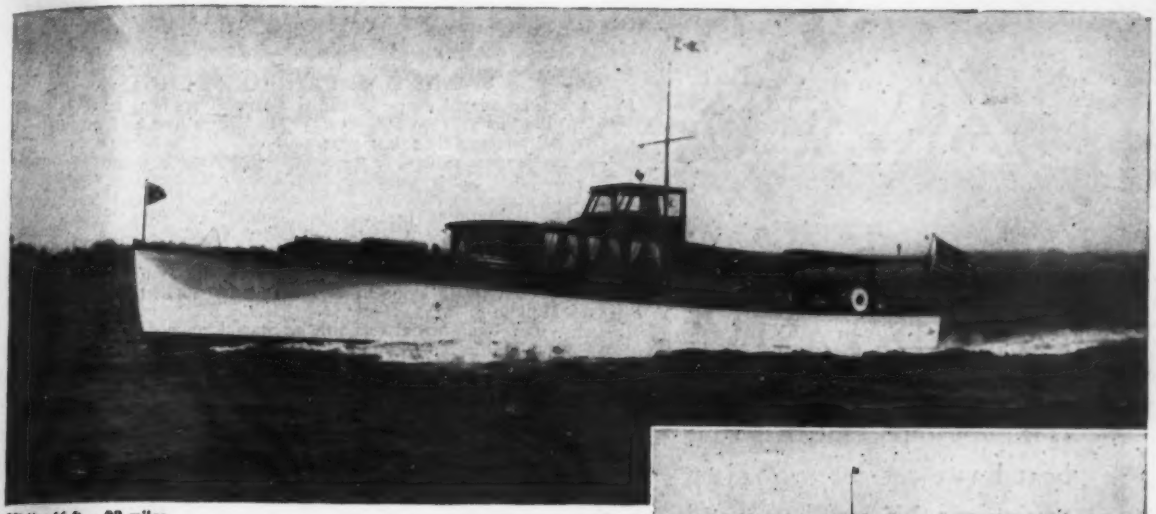
These water trails, which in days gone by echoed shouts of courier-du-bois and fur-trader, are now being followed by an increasing number of vacationists who are seeking a trip out of the ordinary run of holiday experiences. Physically and historically the region is one of great interest, and whether one follows the Mistassini, Abitibi, Missinaibi, Nelson or any of the other great rivers flowing into the Bay, the cruise will be a memorable one.

The ever increasing demand for information concerning the attractions of accessibility of Canada's northland has resulted in the issuing by the Canadian Department of the Interior of a very interesting booklet entitled Canoe Routes to Hudson Bay, copies of which may be had, free of charge, upon application to the Natural Resources Intelligence Service, Department of the Interior, Ottawa, Canada.

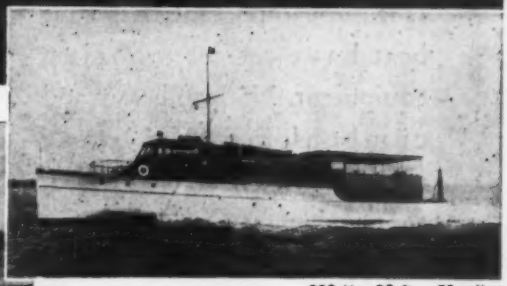
This publication, as the name infers, deals specifically with navigable canoe routes leading to Hudson Bay, giving a short description of each and serving also as a guide to the prospective tourist in the selecting of an enjoyable trip by canoe.

(*Continued on page* 140)

Advertising index will be found on 3rd last page



821 M—66 ft.—22 miles

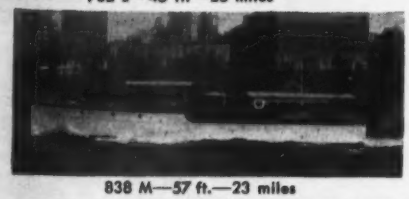


800 M—82 ft.—23 miles

883 L—47 ft.—13 miles

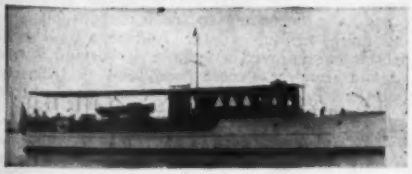
802 M—62 ft.—21 miles

762 L—45 ft.—23 miles



838 M—57 ft.—23 miles

485 M—52 ft.—27 miles



879 L—38 ft.—25 miles and up

An opportunity . . .

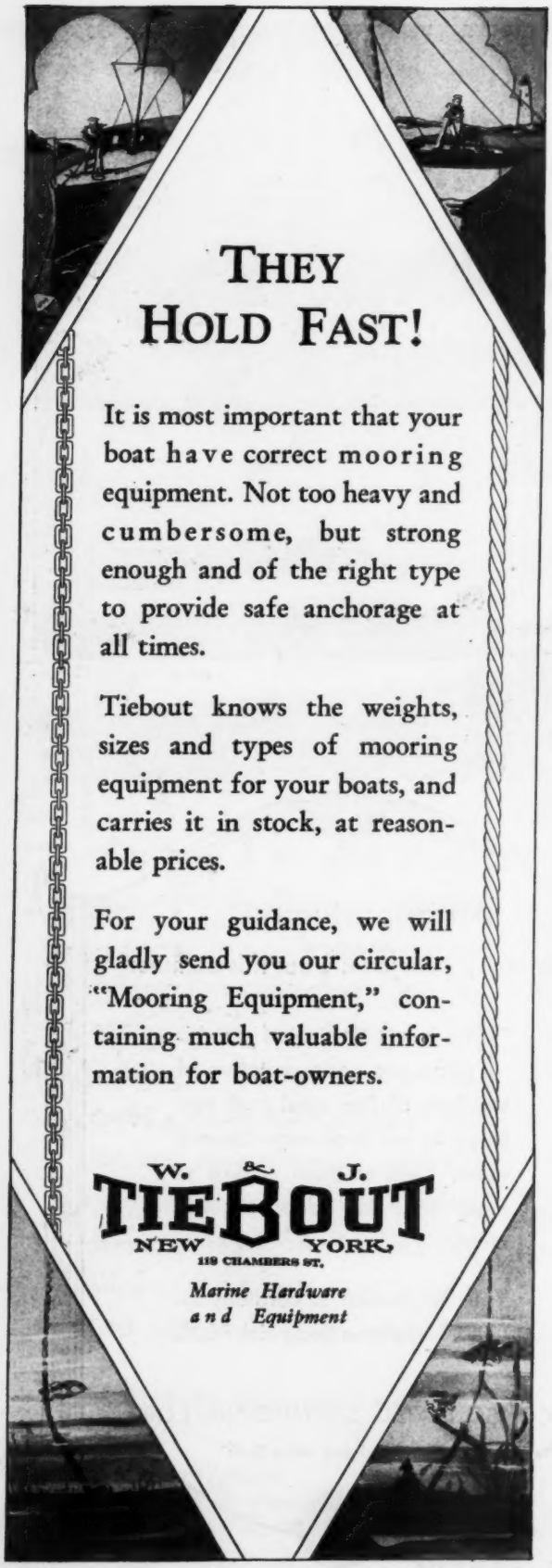
to enjoy your own boat this summer

THE boats illustrated on this page are representative of the fleet of fine used craft now listed by our Brokerage Department. One of them is sure to meet your individual requirements.

Your inspection is cordially invited. Telephone Sedgwick 7800.

CONSOLIDATED SHIPBUILDING CORP.

Morris Heights New York


THEY
HOLD FAST!
It is most important that your boat have correct mooring equipment. Not too heavy and cumbersome, but strong enough and of the right type to provide safe anchorage at all times.
Tiebout knows the weights, sizes and types of mooring equipment for your boats, and carries it in stock, at reasonable prices.
For your guidance, we will gladly send you our circular, "Mooring Equipment," containing much valuable information for boat-owners.
W. & J. TIEBOUT
NEW YORK
119 CHAMBERS ST.
Marine Hardware and Equipment

YARD AND SHOP

(*Continued from page* 138)

ANNUAL FAIRFORM CRUISE

The annual cruise of the fairform Flyers will leave Jacksonville this year on May twenty-fifth with a fleet at least fifty per cent. larger than last year.

The flagship will be the new 56-foot Amadis, owned by Colonel William E. A. Bulkeley of Hartford, Connecticut, with Huck in person in command. Aboard will be Mr. and Mrs. Harry L. DeMuth of Jacksonville. Colonel and Mrs. Bulkeley will join the fleet at Norfolk.

Second in line will be the 56 Maxim, owned by David M. Goodrich, flying the New York Yacht Club burgee. The Maxim is successor to Mr. Goodrich's smaller Fairform flyer, Minim.

A veteran of the fleet will be Starjak, owned by Earl M. Wilson of the American Yacht Club of Rye, N. Y., making her second round trip with the fleet. Mr. and Mrs. Wilson so enjoyed the cruise last year that they cruised the Starjak south last Fall particularly to be present a second time.

The new Sharvia, belonging to Jesse J. Ricks of the Manhasset Bay Yacht Club, will be among those present, with owner and probably William Okie aboard.

The Tee Pee, which has already cruised fifteen hundred miles through the Bahama Islands this year, will probably be with the fleet, unless her owners, Ralph A. Parker and Charles B. Tebbetts of the Larchmont Yacht Club, take her up earlier, which they threaten to do. These men started off from Jacksonville February 12 as 100 per cent. landlubbers, returned March 19 as bronzed, skilled and seasoned yachtsmen.

Another veteran that made the cruise last spring, which came to Florida for winter cruising, and that may be along unless her owner, E. Allan Wood of the New York and Indian Harbor Yacht Clubs, sends her up earlier, is New Moon, with some eight thousand miles to her credit.

August Horrmann will have his new special 48 on her maiden cruise, the craft not yet being graced with a name.

Henry S. Baldwin and his wife, of Brookline, will bring a yet unnamed boat up for her owner, taking the cruise for the second time. Selecting a name seems to be the hardest thing a new owner finds to do.

Don Barnett, of the Barnett National Bank, who brought up Minim last spring, and who has been threatening to bring a libel action against Huck all the year on account of the facts that Huck published in MoToR BoatinG last July, threatens to bring another boat up this year in order to accumulate more evidence before starting action.

In fact, this cruise proved so very popular last year that it promises to become one of the major yachting fixtures. Invitations are being extended to owners of fast, seagoing cruisers to join the fleet, in those cases where there will be an attractive party on board, including the owner.

Stops will be made at the Sea Island Yacht Club where the fleet was given such a welcome that a mutiny ensued, and at the Naval Academy at Annapolis where the welcome was equally cordial.

No attempt will be made to keep to any schedule or to proceed with any haste, it being apparent from last year's cruise that the yachtsmen preferred to tarry at some of the attractive places.

R. B. HARRISON WITH DART COMPANY

Dart Boats, Inc., of Toledo, Ohio, manufacturers of Dart runabouts, announce the appointment of Richard B. Harrison as Secretary and Purchaing Agent. Mr. Harrison brings to the Dart organization such a wealth of experience and knowledge acquired in other fields of endeavor that his success in the boat industry is most decidedly assured.

BIG GAIN IN RUNABOUT SALES

That the year 1930 will be a banner one for the boat industry is ably brought out by Dart Boats, Inc., of Toledo, Ohio, who report sales for the first three months of the year—January, February and March—to exceed by several hundred per cent their volume for the corresponding period in 1929. Webb C. Hays, II, president of Dart Boats, Inc., is quoted as saying that in addition to the unprecedented number of deliveries already made this year "orders on hand are piling up at such a great rate that it has been necessary to treble our production schedule so that we might fill our orders. Additionally, since the first of the year Dart has enjoyed a volume of foreign business far in excess of our fondest expectations, and that business and economic conditions both in the United States and abroad, have returned to a normal basis are to our minds, at least, a very definite conclusion."

(*Continued on page* 142)

Advertising index will be found on 3rd last page

TRAPPED....*by these...*

SENTINELS of SILENCE

They had worked the coast safely for years. At the first sound of the Government's cutters they were away in the dark. But not that night. In silence the revenue men bore down upon them. A flash of the searchlight. Captured. The Government boat had been equipped with Maxim Silencers. The approach had been made without noise.

A story with a point, because silent operation of your boat is just as desirable. With Maxim Silencers, you have complete quiet at any speed, and without loss of power. Not a muffler, a silencer - - - that turns explosions into a quiet stream of air. A Sentinel of Silence dispelling those Devils of Din. Inexpensive and easily attached to the exhaust pipe, obtainable for any engine need through dealers everywhere.

Rout those "Devils of Din"

The New 1930 M-2 MAXIM SILENCER for MOTOR BOATS

THE MAXIM SILENCER COMPANY
Hartford, Connecticut, U. S. A.

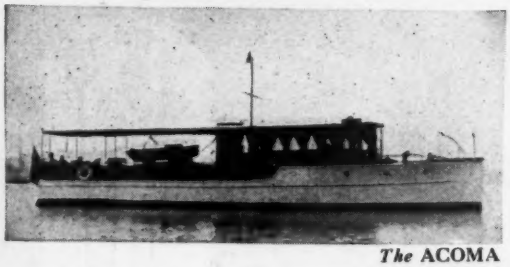
New York Office 55 West 42nd St.

MAXIM SILENCERS ARE ALSO MADE FOR DIESEL ENGINES

An Opportunity

to acquire this fast cruiser at an attractive price

This beautifully built 60 ft. cruiser represents a splendid opportunity for some discerning yachtsman. Has spacious deck house, two double state rooms, large after-deck. Twin screw . . . powered by two Speedway motors. Bridge deck control. Investigate now through your own broker or get in touch with us direct. Phone Sedgwick 7800.



The ACOMA

THE CONSOLIDATED SHIPBUILDING CORPORATION

Morris Heights New York

CAPE COD BOATS

DON'T BUY A BOAT

Until you have received information on our boats, as we have several new models.

CAPE COD BABY KNOCKABOUT

This model is brought out to meet the demands of various yacht clubs and individuals, a number of yacht clubs having adopted this boat as a standard racing class. Some clubs have fleet of 30 boats. All Cape Cod boats are standardized built.

ROWBOATS

10, 12, 14 feet long. Of various models. Strong, well-built and safe.

RUNABOUT, LAUNCHES AND DORIES

New 16' Runabout with Van Blerck Jr., 20' Runabout. Niagara motor, 20' Special Dories safest sea-going boat built.

OUTBOARD MOTORBOATS

New sea-going boat for outboard motor; other models for general utility and high speed use.

16' Speedcem with Van Blerck Jr., self-starter and reverse gear. Complete ready to run. Most seaworthy and fastest little boat built. SPEED 30 Miles. Order early as our production is limited. $987 F.O.B. Factory

CAPE COD SHIP BUILDING CORPORATION

Builders of Standardi ed Boats

SHOW ROOM, MAIN OFFICE, AND WORKS, WAREHAM, MASS.

Boston Show Room, Rapp-Huckins Co., 138 Beverly St., Boston, Mass. Branch Office, 18 Tremont St., Boston, Mass.

YARD AND SHOP

(*Continued from page* 140)

OUTBOARD CRUISING A POPULAR SPORT

The great variety of smart outboard runabouts and cruisers offered by the leading boat builders of the country is an indication of the tremendous growing interest in the outboard runabout and cruiser as examples of luxurious, yet inexpensive water transportation. For the entire family of moderate circumstances, the outboard runabout offers pleasure and enjoyment, or convenient water transportation. Smart, speedy outboard runabouts are obtainable at low first cost and are inexpensive to maintain. These trim boats attain speeds comparable to those of inboard powered runabouts and, now that electric starters have been applied to outboard motors, the owner may enjoy all the comforts and conveniences of electric starting and lighting, hitherto found only in much more expensive outfits.

The lure of cruising along the coast, across the bay or some broad river highway, has brought the cruiser, and particularly the outboard type cruiser, into general favor. These staunchly built boats are admirably designed to include sleeping quarters for four persons, galley, and all conveniences required for a vacation on the water.

The outboard cruiser, equipped with an electric starting Evinrude Speeditwin, offers a new type of transportation—water transportation where the highways are cool and dustless—free from screeching brakes and traffic cops. The vacationist may take his family in the outboard cruiser, store provisions for a week or two weeks' trip and cruise to far distant places, wafted by the cool water breezes. The vacationist or wanderer may cruise during the day, and, when night comes, cast anchor wherever he finds himself. For the children such water travel is a source of unending enjoyment and worthwhile education.

PORT LUDINGTON GROWS

The opening of Port Ludington, 258 S. Broad Street, Philadelphia, has created so much interest in that locality that additional salesmen have been added to the force to take care of the business. The Boat Division of Ludington Aircraft, Inc., manufacturers of the 17-foot inboard runabouts, Sportship and Sportship Senior as well as outboard racing hulls for all classes are the operators. Ludington in addition to their own craft are representatives for Elco Cruisers and Chris Craft Runabouts.

NORTHWEST WILL HOLD TWO-DAY REGATTA

The plans for a big regatta for outboard and inboard motorboats, to surpass anything ever attempted in the Northwest and to be comparable to those of Florida, Detroit and California powerboat associations, were revealed recently by the Inland Empire Outboard Motorboat Club by Comm. K. L. McGlenn.

It will be a two-day thriller on the week end of July 19 and 20 at one of the lakes, the choice of several favored to be announced soon. Two thousand dollars in prizes, the largest aquatic purse ever offered in the Northwest, will be at stake.

Several features new to Inland Empire waters have been planned, important among them the appearance of a flock of the speedy 151 hydroplanes.

Coast outboard racers who have promised to be here are Gail Roose of Seattle, Northwest class D champ in 1929; Gerry Bryant, Northwest class B champ in 1929; Harry Long of Olympia, Northwest class B champ in 1928; M. G. Shain, Northwest free-for-all champ last year, who will race in the class D displacement class, and Miss Bertha Reinell of Everett, class A racer, who expressed the hope that Spokane and Inland Empire women drivers would turn out to compete with her.

Commodore Davis of the Northwest Association and Commodore Wolf of the Queen City Club have started negotiations for a special train from the coast to the local event.

A special treat will be the appearance of the Liberty-motored hydroplane built by Bob Yandt of Coeur D'Alene for Clarence Paulsen and Newton Wakefield of this city. The craft is expected to do about 70 miles an hour and is waiting open water at the lake city for her first trial.

The Inland Empire Outboard Motorboat Club has a membership of 80 and a steadily growing roster. Officials estimate that more than 100 boats will be entered in the big two-day regatta.

Any additional information regarding the regatta may be had by communicating with any of the following: K. L. McGlenn, commodore, 1126 2nd Avenue, Spokane, Washington; O. M. Peck, vice commodore, 209 Sprague Avenue, Spokane, Washington; H. E. Rinehart, secretary, 219 Riverside Avenue, Spokane, Washington; R. G. Reimers, Manager, Sporting Goods Department, Holley-Mason Hardware Company, S 157 Howard Street, Spokane, Washington.

(*Continued on page* 144)

Climax Hard Racing Green Bottom Paint was used on the 38-foot Chriscraft Cruiser which recently made a record non-stop run from San Francisco to Los Angeles—414 miles—14hrs. 29 min.—averaging more than 28 miles per hr. The interior is finished in a Climakote tint. The boat is owned by the Yacht and Motor Sales Corp., Wilmington, Cal. Another example of the suitability of Climax paints for fast, strenuous service.

Beautiful Durable Finish

FOR enduring beauty, use CLIMAKOTE and Climax Yacht White or Climax Black, the paints that meet every need of the discriminating boat owner. CLIMAKOTE is the most permanent, easiest and fastest-working primer and surfacer available. Climax Yacht White and Climax Black are finishing coats of sparkling, lasting beauty. On sale from coast to coast. Give your boat the finest, most lasting finish you can secure, and an economical finish, too. Ask your dealer for Climax paints.

THE CLIMAX CLEANER MFG. CO., CLEVELAND, OHIO

New England Office: **282 Moody Street, Waltham, Mass.**
Pacific Coast Office: **135 South Swall Drive, Los Angeles, Calif.**

DISTRIBUTORS: *Armstrong & Galbraith, Inc., 373 Fourth Ave. and 79 Barclay Street, New York, N. Y.—Slearns Marine Service Co., 40 Broad Street, Boston, Mass. —Weisgerber Paint & Varnish Co., 28 E. Larned Street, Detroit, Mich.—The C. J. Hendry Co., San Francisco, San Pedro and San Diego, Cal.—Pacific Marine Supply Co., Seattle, Wash.—Emil Aarup, 5111 South Main Street, Los Angeles, Cal.—Beebe Co., Portland, Ore.—J. W. Magnus, 155 King Street, Toronto, Ontario, Canada.*

CLIMAX BOAT PAINTS

MASTER
CRAFTSMANSHIP
AT
MODERATE
COST
Before ordering your new sport runabout, by all means, write for illustrated literature describing the new ATLAS runabouts in 19, 23, 26 and 30 foot lengths. Up to 30 and 45 skimming miles per hour are neatly tucked away into the racy lines of each model. They are designed by master craftsmen to provide the utmost in riding comfort and ease of control at all speeds. You'll thank yourself for having written for full information. Because, in addition to their ultra-custom design, ATLAS prices are exceptionally moderate—as low as $1575 for the 19 foot, fully equipped all-mahogany runabout.
Atlas
Dealers write for special dealer proposition
ATLAS BOAT CORPORATION, MENOMINEE, MICHIGAN

☆

Yachtsmen Ahoy!

SOMETHING NEW

In publishing the Eldridge Books of Harbor Charts this year we have added to each book several "coasting" charts so that you may go from New York to Bar Harbor entirely with these books and without other charts. All the principal courses, distances, buoys, lights, fog signals and necessary information are given plainly and ready for immediate use.

No. 1 Book New York to Boston.....$20.00
No. 2 Book Boston to Bar Harbor.....$15.00

BOUND IN STIFF CANVAS COVERS

These books make a unique and useful present to the friends you cruise with.

KELVIN & WILFRID O. WHITE CO.
112 STATE STREET BOSTON
38 WATER STREET NEW YORK CITY

On Inspection at both stores

YARD AND SHOP

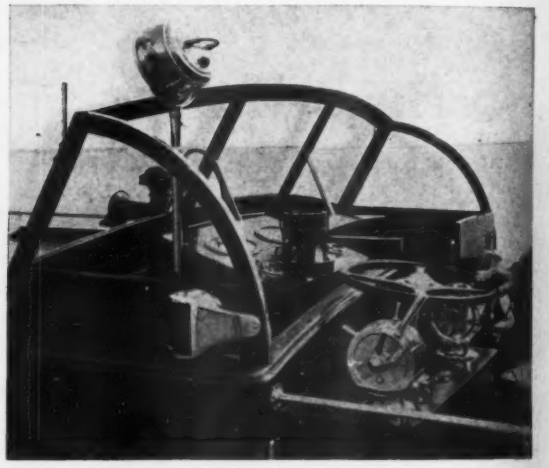
(*Continued from page* 142)

LONG DISTANCE OCEAN RACE

On the tenth of June the Transpacific Yacht Club proposes to schedule the start of the longest regular ocean race ever run. The course lies from the port of San Francisco across the Pacific Ocean to Papeete on the island of Tahiti. Some magnificent trophies will be provided for the winner and the second arrival in each of the class events. In addition the natives will make each visitor a present of an artistic wooden bowl of their own manufacturer, a very unique souvenir of the islands.

The second event is the regular biennial Los Angeles-Honolulu Race which starts from the outer harbor of Los Angeles on the Fourth of July. For this race the usual valuable trophies will be presented including the handsome one donated by Sir Thomas Lipton. These trophies become the permanent property of the winner of the respective class for which each cup is designed.

A cordial invitation is extended to all East Coast Yachtsmen to use these opportunities for an unusually fine vacation and to compete in either of the races. Those who might desire to shorten their return trip may run back direct from Honolulu or Tahiti to the Panama Canal which not only takes a considerable cut from the mileage but also provides a more favorable wind for the run. Further information in connection with either of these races may be had by writing the secretary of the Transpacific Yacht Club, Henry B. Warren, 610 American Bank Building, Los Angeles, California, or Albert Soiland, General Chairman, 1407 South Hope Street, Los Angeles.



All controls on Knowlton L. Ames' new 45-foot Robinson Seagull commuter are centralized on the bridge. Twin Hall-Scotts produce 35 m.p.h.

CORRECT ATTIRE FOR YACHTSMEN

The Brooks Uniform Company of 143 West 40th Street, New York City, who specialize in the furnishing of correct uniforms and costumes for all kinds of functions, have recently added a new department to care for the outfitting of yachtsmen. Their personnel consists of men who have had many years of experience in this line and yachtsmen may be assured that their Brooks clothing will be strictly correct. Copies of a new catalogue which illustrates and describes the Brooks line will be available within a short time and the Brooks Company will be glad to mail a copy to anyone who will write to the above address.

DIESEL YACHTS

As a supplement to their Diesel Yacht Book, the naval architectural firm of Cox & Stevens has prepared an unusually interesting pamphlet which tells about more than a dozen of the new Diesel yachts which they have designed. The illustrations show the new craft, which range in length from 84 to 265 feet, to be particularly attractive vessels, most of the larger ones being of the conventional clipper stem and over-hanging stern type, yet having an air of distinctivenes and character. A few of the yachts depart somewhat radically from present day accepted styles, notably the big 265-footer, Alva, and the 184-footer, Carissima. All of these vessels have been custom-designed to meet special owner's requirements and each is a masterpiece in its own particular class.

(*Continued on page* 146)

Advertising index will be found on 3rd last page

ONLY A FEW WEEKS MORE!

ARE YOU a boating enthusiast, getting ready to slip your land-bound moorings for a joyous summer afloat? Does your blood tingle in anticipation of an evening on the bay with the mauves and purples of a twilight sky; or the enchantment of a winding stream with its gay tapestry of sunlight and shadow? Only a few short weeks now—Are you getting ready?

Is your boat KAINER equipped?

If you are having a boat built to specifications, your builder probably is using Erico and Kainer Marine Fittings to be SURE of pleasing you. If you are overhauling and outfitting your own, Erico and Kainer Specialties with their fine construction and snappy appearance will add to the joy of motorboating, and your pride of ownership a hundred fold.

How about a new 1930 catalog? May we send you one TODAY so you can check your requirements?

KAINER & COMPANY
CHICAGO
761-771 Mather Street

SAFE...DEPENDABLE...
EVERY BOAT OWNER WILL WANT A STERNO MARINE STOVE...

Does away with all wicks, priming cups and liquid fuel. Uses Sterno Canned Heat. *Does not liquefy. Burns solid.* Absolutely safe in roughest weather. Insurance officials say it reduces fire risk to minimum. Sturdily constructed. Enameled to prevent rusting. Size, two burner as illustrated, 19¾" x 10" x 10". Retail price, two burner, $10.00. See it at your dealer's today or address—

THE STERNO CORP., 9 East 37th St., New York City

IN this rakish twenty-two foot Sportskiff we have blended the comforts and snappy appearance of the modern double cockpit runabout with the superior sea-going qualities of the sea-skiff. The Sportskiff is available in either natural finish or enamel painted. It is luxuriously upholstered and fitted with the finest accessories and hardware trim. Speed of 20 M.P.H. is attained with 40 to 50 H.P. For general use, deep sea fishing or tender service the Backus Sportskiff is unsurpassed. Write today for full particulars.

G. T. BACKUS & SON
FORT PIERCE FLORIDA

See the Backus Sportskiff on display at showrooms of Henry A. Pohl, Inc., 410 N. E. 13th St., Miami, Florida

Sportskiff

YARD AND SHOP

(*Continued from page* 144)

HARGRAVE APPOINTED GAR WOOD DISTRIBUTOR

Announcement is made by Gar Wood, Inc., of the appointment of A. B. Hargrave as distributor of Gar Wood speed boats for northern Michigan.

Mr. Hargrave, president of the Gogebic and Portage Lake Boat and Engineering Company, and a prominent figure in northern yachting and boating circles, is an enthusiastic water man, and is especially keen about the most recent addition to the Gar Wood line, the Baby Gar 22, a popular priced twenty-two foot runabout. This craft, furnished with either the Chrysler Crown engine, developing 75 horsepower, or a larger engine of 125-horsepower, adds the fourteenth standard model to the Gar Wood line, which now includes craft from 22 to 33 feet in length and capable of speeds up to 55 miles per hour.

Vacationists and sportsmen seeking recreation in northern Michigan lake regions are now offered increased service facilities, since Mr. Hargrave has display rooms at Ironwood and Marquette, besides the main showrooms at Hougton.

DODGE APPOINTS NEW MERCHANDISERS

The Horace E. Dodge Boat and Plane Corporation, of New York and Newport News, Va., announces that it has granted a franchise to the Gordon England Company, of London, England, for the sale of Dodge boats throughout Great Britain. This company is the largest manufacturer of automobile bodies in the British Isles and its president, Gordon England, is president of the Automobile Dealers Association of Great Britain. The company will immediately organize a separate marine organization under the direction of M. Ralph Austin, who is a well known personality in British motor boating circles. Mr. Austin recently came to the United States to secure, for his company, the British representation of a standard line of American boats. The contract with Dodge resulted and Mr. Austin sailed recently on the steamship American Trader with the first shipment of Dodge runabouts. It is announced that the Gordon England Company will market Dodge boats in Great Britain largely through automobile channels.

One of the deciding factors in the negotiations with this company was the fact that boats can be shipped direct by steamer from the Dodge plant at Newport News to the Gordon England plant in London, with no rail shipments whatever required.

THREE BLUE JACKETS

The Universal Motor Company's Blue Jacket is now offered to the boating public in three sizes, and at three prices. This announcement will be of particular interest to those people who do not need the exceptionally complete equipment of the standard Blue Jacket and to those people who do not demand the extremely high speeds.

The original Blue Jacket has been stepped up to 47 h.p. This motor offered to the boating public at the first of the year was rated at 45 h.p. However, it had consistently and unfailingly delivered 47 h.p. In addition, a tachometer head has been added as standard equipment.

The 44 h.p. Blue Jacket is precisely the same motor, except that it is slightly lower powered, and standard equipment does not include oil filter, fuel pump, instrument panel and tachometer connection.

The 40 h.p. Blue Jacket is the same motor in basic design, but turns at lower speeds (3200 r. p. m., as compared with 4000 r. p. m. for others.)

Alloy iron, rather than aluminum, is used for cylinder head and oil base. The lower speed carbureter is used and the oil filter and cooler are eliminated. In every other respect, it is the same high quality motor as its higher priced mates.

A STOCK SPEED TENDER

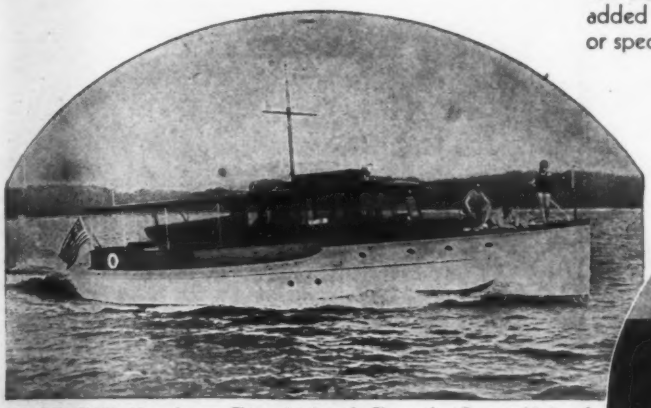
Dart Boats, Inc., of Toledo, Ohio, have just announced a new speed yacht tender which has been developed on the 22½-foot Dart hull. This smart addition to the Dart fleet is from the competent board of I. J. Holler, Chief Engineer and designer of the Dart company and incorporates all those sterling features of construction and design for which Dart runabouts have long been noted. The design closely follows the conventional type of yacht tenders plus an unusual number of refinements and innovations which naval architects predict will be responsible for the immediate success of this new model. The Dart company had long felt that there was a very definite need for a medium sized speed tender. Nationally known yacht designers and builders when questioned on the subject were of the same opinion with the result that the new Dart tender came into being.

(*Continued on paeg* 148)

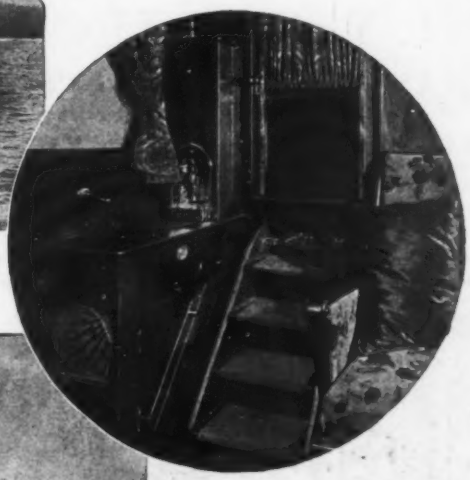
Advertising index will be found on 3rd last page

You'll find Crosley Radio in the Finest Craft Afloat

WHILE the installation of Crosley Screen Grid Battery Radio in water craft is not as costly as other similar installations, it is a notable fact that you'll find Crosley Radio in the finest craft afloat. In the adoption of Crosley Radio by boat builders as standard equipment, quality of performance alone has been the deciding factor. At the last New York show there were eighteen boat builders of national reputation who displayed models equipped with Crosley Radio, either as standard equipment or as an added accessory. It can be installed in your present boat or specified to be built into any craft you may purchase. It is fully shielded from all motor noises and is free from outside electrical disturbances. Your Crosley dealer can supply you with full information.

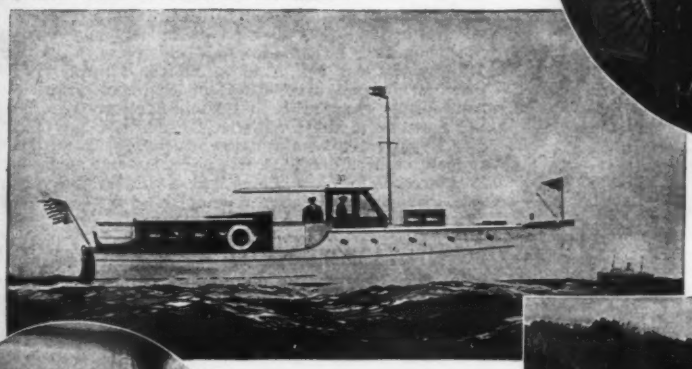


ABOVE: The ELCO «38» under way. This craft is from the Elco yards at Bayonne, N. J., and has installed in it a Crosley Screen Grid Battery Receiver with Power Speaker as standard equipment.

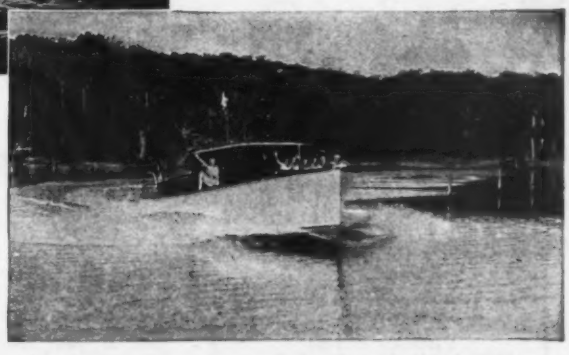


IN CIRCLE: This illustration shows a Crosley Screen Grid Battery Receiver with Power Speaker as standard equipment in the new CHRIS-CRAFT YACHT, Model 123, the finest CHRIS-CRAFT ever launched and the flagship of that famous fleet.

BELOW: This DAUNTLESS «42» was equipped by Millard, Brewster & Chambers, shipwrights, with a Crosley Screen Grid Battery Receiver and Power Speaker.



IN CIRCLE: Interior of the FAIRFORM FLYER built by Huckins Yacht Corporation of Florida showing installation of Crosley Screen Grid Battery Receiver with Power Speaker and phonograph. This equipment is standard in this fine craft, illustrated under way at right.



THE CROSLEY RADIO CORPORATION POWEL CROSLEY, JR., *President* **CINCINNATI, OHIO**

Home of WLW — *"the Nation's Station"*

You're *THERE* with a Crosley

CROSLEY RADIO

Immediate Stock Delivery

EVERDUR
SCREWS, BOLTS, NUTS, RODS AND SHAFTING

TOBIN BRONZE
SHAFTING

Copper, Brass and Bronze
Sheets . . Rods . . Tubes

T. E. CONKLIN
BRASS & COPPER CO.
INC.
54-60 Lafayette Street, New York

Telephone Walker 7500

MEMBER COPPER & BRASS RESEARCH ASSOCIATION

We manufacture a complete line of "Poweray" and "Lobby" Searchlights, running lights and cabin fixtures, outboard specialties and marine type electric house fixtures. Ask for National Marine products at your dealer. Look for the trade mark.

—

Write for circular to Dept. M.

HUCKINS
FAIRFORM FLYERS
Built by Huckins Yacht Corp., Jacksonville, Florida, are National Marine Lamp equipped.

The NATIONAL MARINE LAMP COMPANY
FORESTVILLE, CONN.

YARD AND SHOP

(*Continued from page* 146)

ITALIAN COUNT ORDERS AMERICAN RUNABOUT

The Hacker Boat Company has just received an order from Count G. Anselmi, of Italy, for a 24-foot 35-mile Hackercraft nine passenger runabout. In placing the order, Count Anselmi enclosed a photograph of his home on a small island off the coast of Italy in the Gulf of Naples—Gaiola. Count Anselmi intends to use the boat to commute between his island home and the mainland.

It is interesting to note that a very large increase in Hackercraft export business has occurred this year, any number of inquiries being received together with a very large proportion of orders for immediate delivery. The countries included in the shipping schedule are England, Spain, Germany, Italy Philippine Islands, and several South American countries.

The island home of Count G. Anselmi in the Gulf of Naples, Italy, to which he will commute from the mainland in a 24-foot 35-mile Hackercraft

INTERNATIONAL CRUISER RACE

The start of the 1930 Seattle to Prince Rupert International Cruiser Race, held under the auspices of the Seattle Yacht Club and the Prince Rupert Rowing and Yacht Club, is scheduled for Friday, June 20, at Seattle, Washington. This long distance race is open to cruisers of any size not less than 25 feet in length overall owned by members of recognized yacht clubs. The distance from Seattle to Prince Rupert, B. C., is 569.28 nautical miles. The division of entries, subject to change by the committee, is as follows: Class No. 1, 25 feet to 39 feet 11 inches; Class No. 2, 40 to 59 feet, 11 inches; Class No. 3 includes all boats over 60 feet in length. Entries close June 10 and must be received by that date. Application for handicap rating must be in the Committee's hands not later than June 15, and is subject to confirmation or change by the Handicapping Committee at the official trial. Entries and applications should be addressed to W. W. Meacham, secretary, Seattle-Prince Rupert International Cruiser Race, care of the Seattle Yacht Club, Seattle, Washington.

MANHASSET BAY ORGANIZES JUNIOR Y. C.

In order to stimulate interest in yachting among the sons and daughters of the members of the Manhasset Bay Yacht Club, a Junior division of the club has been organized. It is pointed out that the new club will serve to not only accomplish the above purpose but will also provide the younger members with a healthful and interesting occupation during the summer months, thereby avoiding the necessity of their going away to a camp for recreation. Children between the ages of 5 and 18 are eligible for membership.

It is intended that the junior members shall themselves handle all matters pertaining to the conduct of the organization under the guidance of the committees. This means electing their own officers, forming their own committees and arranging their own races. A separate room at the club has been set aside for their exclusive use. A sailing master will be engaged to teach them the fine points of sailing and racing and daily races will be held under his supervision. Other instruction will equip them with a knowledge of the use of a compass, the making of knots and splices, and the care, conditioning and maintenance of their boats.

A junior- one-design class of sail boat has been adopted and is recognized by the Junior Yacht Racing Association with twenty or thirty already in use. Generally similar to the Star class, it has a number of improvements over that type. Twenty-one and a half feet in overall length, it is 15 feet on the water line, 5 foot, 10 inches beam, 3½-foot draft, and carries 230 square feet of canvas. It is equipped with a keel and airtight tanks, making it unsinkable and extremely safe.

(*Continued on page* 150)

Advertising index will be found on 3rd last page

Photographs show "Yankee" under construction at Lawley's. Close-up at left—fastening the TOBIN BRONZE plates with TOBIN BRONZE rivets. The bolts are then removed.

TOBIN BRONZE Selected for Plating Cup Defender Candidate "Yankee"

MORE than 55,000 lbs. of TOBIN BRONZE will be used in plating "Yankee", the Cup Defender Candidate, designed by Frank Paine of Paine, Belknap & Skene, and being built at Lawley's.

"We selected Tobin Bronze," writes Mr. Paine, "because of our confidence in its enduring qualities as evidenced by its extensive use in previous yachts of our design. Moreover, in our opinion, the extreme smoothness and uniformity of Tobin Bronze provide a faster bottom than we could obtain and maintain with any other metal.

"Our decision to use Tobin Bronze was made after a careful study of all available metals. It was selected in preference to more costly metals, even though cost was not a factor."

(signed) *FRANK C. PAINE.*

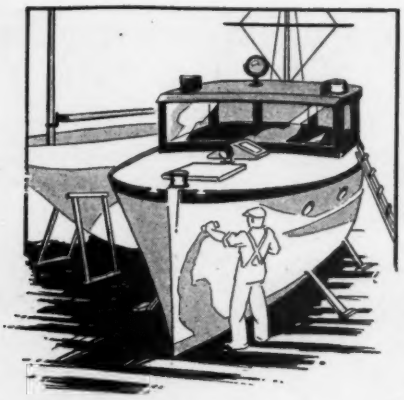
In addition to the plating, TOBIN BRONZE is used in the "Yankee" for deck stringers and all exposed metal work including centerboard box, centerboard, keel plate, rudder stock and plate rivets.

Paine, Belknap & Skene have designed many of America's most notable racing yachts. In wooden hulls of their design, EVERDUR screw fastenings are used. EVERDUR and TOBIN BRONZE are exclusive products of The American Brass Company, Waterbury, Conn.

ANACONDA COPPER

BRASS ANACONDA BRONZE

The trade-marks "Tobin Bronze" and "Everdur" are registered in U. S. Pat. Off.



Spring ahoy!

GET SET FOR SUMMER—It's fitting-out time again. The success of the coming season depends, to a great extent, upon what you do for your boat now.

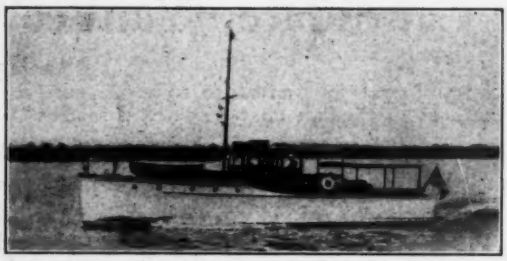
Go over the bottom thoroughly . . . it's ten to one some of the seams need caulking with spun cotton. Finish them with seam composition—then give the whole boat, from keel to cabin top, a coat of paint and varnish, and you're all set for the year.

Order your supplies now from Carpenter's big Marine Catalog. Everything you need is in it.

GEO·B·CARPENTER & CO.

Marine Supplies, Sailmakers and Riggers

200 W. AUSTIN AVE. CHICAGO, ILL.



This 49′ raised deck cruiser recently launched by the Marine Construction Co., Custom Built Yacht Builders of Wilmington, Delaware, is one of the many craft seen in action around Cape Cod, Mass. Built to owners specifications and powered by Winton, this craft has a speed of 15 to 18 M.P.H. Duplication can be built to order. Address all inquiries to:

MARINE CONSTRUCTION CO.

WILMINGTON, DELAWARE

4 Marine Railways **Storage Yard**
Machine Shop **Facilities up to 80′**

"Any Boat—Anything for a Boat"

YARD AND SHOP

(Continued from page 148)

TEAGAN TO HANDLE SALES FOR WOOD

J. Howard Teagan, prominent figure in the automotive and marine motor field for many years and a speedboat enthusiast, has been appointed salesmanager for Gar Wood, Inc., which organization is this year turning out fourteen different speedboat models from its new plant at Marysville, Michigan.

Mr. Teagan served with the Hupp Motor Car Company for sixteen years, two and a half years as assistant sales manager and fourteen as export manager. Following this, years of service with the Chrysler Corporation in charge of export of marine motors and Fargo trucks round out an experience and acquaintanceship of unusual impressiveness.

The new Wood sales chief, who is known throughout the domestic and foreign boating fields, believes that the present recession in business is purely temporary and that business will show a steady increase with the improvement of the weather. Mr. Teagan believes, too, that the export field for speedboats will be further developed this year and that a good part of the speedboat production will be absorbed overseas where the American speedboat enjoys as great a reputation as the automobile.

Mr. Teagan believes that Gar Wood, Inc., will enjoy a greater success this year than in previous years because of the greater number of models, wider price range and the production facilities available at the big new Marysville plant.

J. Howard Teagan, sales manager for Gar Wood

RED WINGS POWER HEAVY BARGES

During the past summer the Congress Construction Company of Chicago, Illinois, have built two heavy wooden-hulled tow boats for use in general construction and contracting along the Illinois River. These boats are 35 feet in overall length by 10-foot beam and are of the scow type with unusually heavy construction. Each is powered with a pair of 4-cylinder Big Chief Red Wing motors of 60 h.p. each. Being powered with twin motors they have proved very flexible in handling and particularly powerful for their size. At times, Senator, one of the barges, has been called upon to make tows of nearly 100 miles with from one to three barges astern with an aggregate load of 1,000 tons or better and, according to the owners, the Red Wings have always responded in fine shape.

The Congress Company is engaged at present in the dredging of the Upper Illinois River for the Illinois Waterway and have in their fleet a diesel tow boat 65 feet long of the stern wheel type powered with a 120 h.p. engine. Several times during the past winter this boat has been unable to operate and lay tied up to the dock because of ice in the river, while the Red Wing-powered Representative, with its twin screws well below the surface of the water, has smashed and bucked ice almost the entire winter.

(Continued on page 154)

Advertising index will be found on 3rd last page

Nothing *Finer* Can Be Said of Any Motor Boat Than, It is -

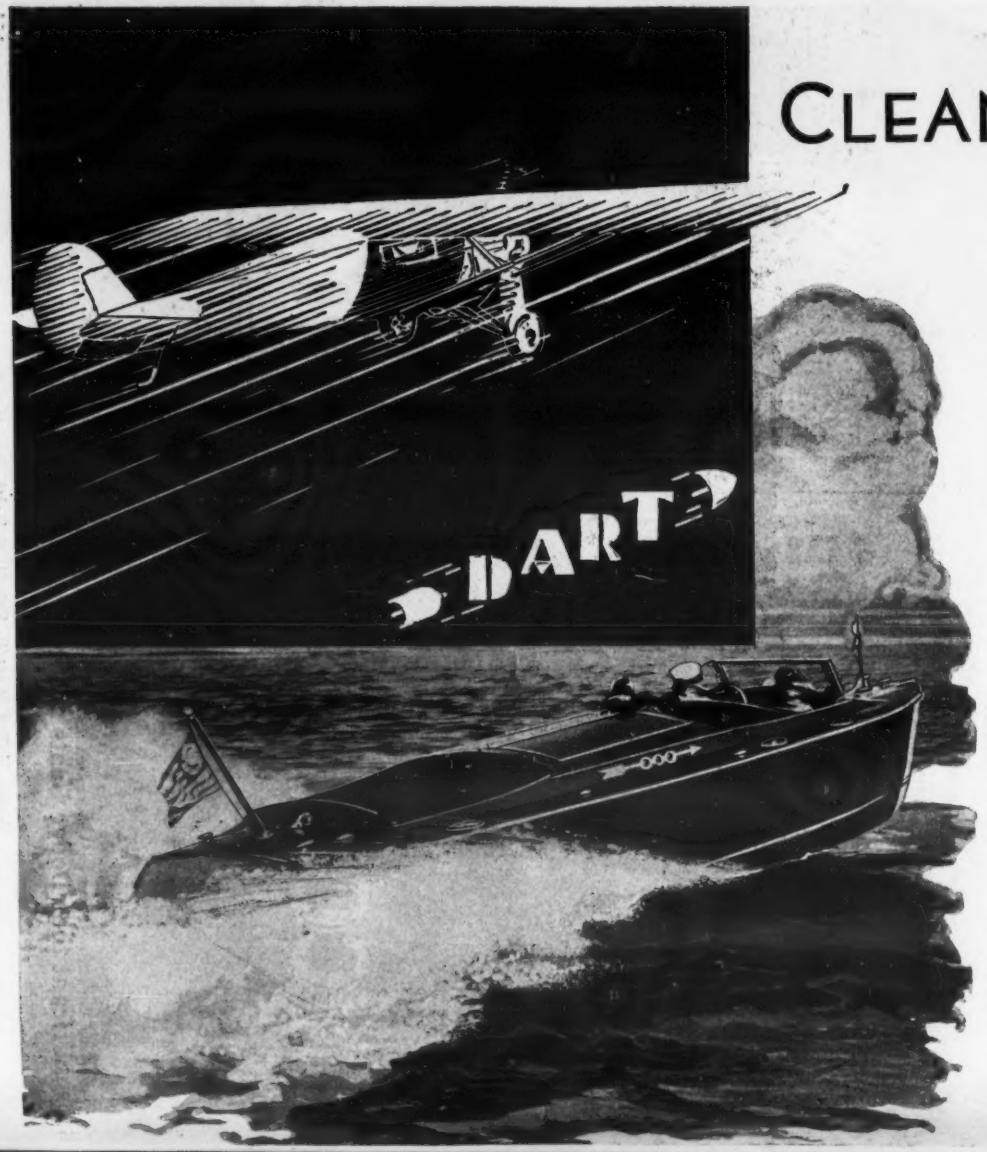
POWERED BY LYCOMING

LYCOMING MOTORS

LYCOMING MANUFACTURING CO.
WILLIAMSPORT, PENNSYLVANIA

It is significant that Dodge Boats are exclusively powered by Lycoming Marine Engines

Advertising index will be found on 3rd last page



CLEAN . . .

AS A PERFECT TAKE-OFF

In action, a DART boat is easily distinguished by her exceptionally level planing angle. It suggests a fast plane at the instant of take-off.

The prow of a Dart is held low, cutting the water evenly and throwing a flat spray well away from the sides of the boat.

A further identifying mark is a bright silvery arrow mounted along her combing. In a race you will usually find this glistening ensignia well in the front, for Dart boats combine MORE SPEED PER HORSE-POWER with unusual seaworthiness and smooth riding quality. Four models, 30-foot, 26-foot, 22½-foot and the sensational new 18½-foot runabout.

WRITE FOR INTERESTING DESCRIPTIVE PORTFOLIO OF ALL FOUR MODELS

DART BOATS, INCORPORATED
Toledo, Ohio

New York Branch: 152 Madison Ave.

WORLD'S LARGEST
PERMANENT NAUTICAL EXHIBIT

140,000
SQUARE FEET OF
MARINE DISPLAYS
AT
MOTOR BOAT MART
NAVY PIER
CHICAGO, ILLINOIS

The country's only all year exhibit, under one roof, of the leading makes of cruisers, commuters, runabouts, outboards and sail boats, inboard and outboard marine engines and accessories of all kinds. Here you can inspect at your leisure the latest offerings of the leading marine manufacturers.

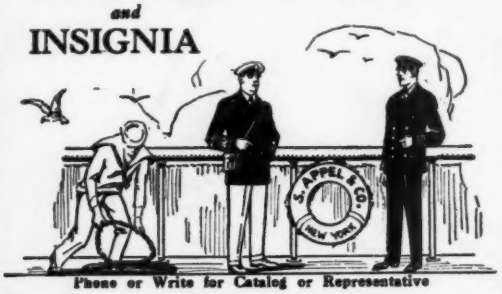
Manufacturers! Write today for particulars on permanent space for your product at the world's greatest nautical exhibit.

OPEN ALL YEAR

—come and compare the latest in the boating world

QUALITY — SERVICE — CORRECTNESS

THESE THREE FACTORS
have established us
as
HEADQUARTERS
for
CORRECT
YACHTING UNIFORMS
and
INSIGNIA



Phone or Write for Catalog or Representative

S. APPEL & CO.
14 to 18 FULTON ST.
NEW YORK CITY
Tel: JOHN 5382 to 5389

Serving the Yachtsman Since 1856

WET OR DRY?

The All-Absorbing Issue

No matter what their views on prohibition may be, a poll of the thousands of boat owners who have installed ST. CLAIR AUTOMATIC SELF-BAILERS would show a unanimous "dry" vote as far as their boats are concerned. They have learned what added comfort this remarkable device affords. IT KEEPS BILGE DRY—EJECTS DANGEROUS GAS FUMES—RELEASES BOTTOM SUCTION—INCREASES SPEED. Models for every type of boat, moderately priced. Join the ranks of "dry" boat owners; write for literature, stating whether interested in a bailer for inboard or outboard craft.

ST. CLAIR IRON WORKS
Dept. "B"—ST. CLAIR, MICHIGAN

82 Marion St.
Seattle, Wash.

38 Spear St.
San Francisco, Cal.

Canadian Branch:
Courtright, Ont.

Detroit Branch:
8203 Woodward Ave.

YARD AND SHOP

(*Continued from page* 150)

HYDROPLANE PLEASURE RUNABOUTS

The decided success of boats of the hydroplane type for use as high-speed pleasure boats is well attested by enthusiastic letters received by Gar Wood, Inc. from several owners of Gar Wood specially-built hydroplanes, praising their performance under all conditions of operation. Some of these owners express surprise at the fact that the hydroplane type of construction is not in more general use for pleasure runabouts.

One of these owners, C. de Beistegui of Paris, France, indicates his complete satisfaction with the Gar Wood hydroplane which he used last summer at Lido, Venice. He states that the boat rides very softly even at speeds over 60 miles an hour. It is reliable, he states, well constructed and smartly finished in all particulars. This craft is a 28 by 7-foot pleasure hydroplane of special design and construction, powered with a 12-cylinder, 40 h.p. Gar Wood marine engine which gives it a guaranteed speed of 60 miles an hour.

Another equally successful boat of the same type of construction is the 28-foot Whoopee, owned by Alfredo Cernadas of Buenos Aires. The owner states that the craft runs beautifully and is remarkably easy riding. Its unusual qualities, he states, are most apparent when passing through the wash of other boats, regardless of how it is taken. Whoopee runs on an even keel at all speeds with very little fuss and water disturbance.

Another of these craft, this one a 36-footer, is in service in Washington, D. C. and is owned by William S. Corby. Jayee III is a 36-foot by 8 foot 7 inch hydroplane pleasure runabout powered with an 850 h.p. Packard marine engine for a guaranteed speed of 65 miles an hour. It seats ten persons comfortably in the forward cockpit and four astern. Mr. Corby writes that Jayee III is always on an even keel regardless of how rough the water may be or the rate of speed at which it may be traveling. When they are running at what they choose to call their cruising speed (45 m.p.h.) the most timid and inexperienced passengers insist that they have no other experience than that of extreme pleasure and that even at speeds in excess of 60 miles an hour there is no sensation of fear or carelessness.

John M. L. Rutherford's 28-foot Sea-Lyon 40 flashing across the finish line a winner in the 200 h.p. class at Miami Beach. She carries a Kermath 200

TWO NEW 75s BUILDING

Two new yachts are on the ways of the Marine Construction Company of Wilmington, Delaware, scheduled for delivery to prominent Wilmington yachtsmen in the near future. One of these is a 74-footer with a 16-foot beam and 4 foot 3 inch draft, powered with a pair of 6-cylinder 175 h.p. Hall Scott reduction gear motors which will be capable of a speed of 15 miles an hour, and will have a cruising radius of 450 miles. Sleeping accommodations provide for six in the owner's and guest's quarters and four in the crew's quarters.

Specifications of the other yacht are as follows: length, 75 feet, beam 17½ feet and draft 4 feet 9 inches. She will be powered with a six-cylinder Winton gasoline motor rated at 125 h.p. at 450 r.p.m., which will supply a speed of 12 miles an hour and a 700-mile cruising radius. Sleeping accommodations include provision for five in owner's and guest's quarters and five in the crew's quarters.

Both of these yachts are double planked, with an inner course of Oregon pine and mahogany outside, with deckhouses, pilot houses, trunk cabins and all exterior trim of teak. Each has all the most up-to-date equipment such as water pressure systems for hot and cold water, generating plant, electric anchor windlass, electric launch windlasses, shower baths, etc.

Illustrating the extent to which the finest of materials has been used in the construction of these yachts, all window frames are made of bronze and all screens have bronze frames. Hardware is chromium plated and shafting is of Monel, turning in rubber bearings.

(*Continued on page* 156)

Advertising index will be found on 3rd last page

The SECRET of the SEA SLED

THAT inverted V bottom is what makes the Sea Sled different in a superior way.

White water goes roaring under her bottom instead of splashing over into your lap.

You can carry a bigger load because your displacement is better distributed.

She's steadier and safer because the greatest displacement is under the gunwales, and she's more comfortable because of the air cushion under her bottom.

Little Model 13 for only $150.00 gives the average man the finest chance to prove these points for himself.

And for dealers there is a complete line all the way up to $8500.00.

Model 13 demonstrates perfectly the clean dry running of a Sea Sled—no bow wave—no side spray—level planing at speed

TRADE-MARK REG. **SEA SLED** U. S. PAT. OFFICE

THE SEA SLED CORPORATION

Sole Licensee under Hickman U. S. Patents

Plant at West Mystic, Conn.

HIGHEST FACTOR OF SAFETY **SEA SLED** OF ANY CRAFT OF THE SIZE

SPEED · · WITH COMFORT AND · · SAFETY

See Your New

STAPLES-JOHNSON

34-Foot Cruiser

***Now On Demonstration in the Water at the* TOMS RIVER BOAT WORKS**

Waterfront Showroom

Also Demonstrating

ACO SEABOATS

BOYD-MARTIN *and* DEE WITE RUNABOUTS

RICHARDSON CRUISERS

If you are interested in buying a cruiser, runabout or outboard boat, it is worth your trip from New York, Trenton or Philadelphia to our showroom, where actual demonstrations are given. Our showroom at Toms River is an easy place to reach via automobile or train.

Builders of VIKING SEA SKIFFS

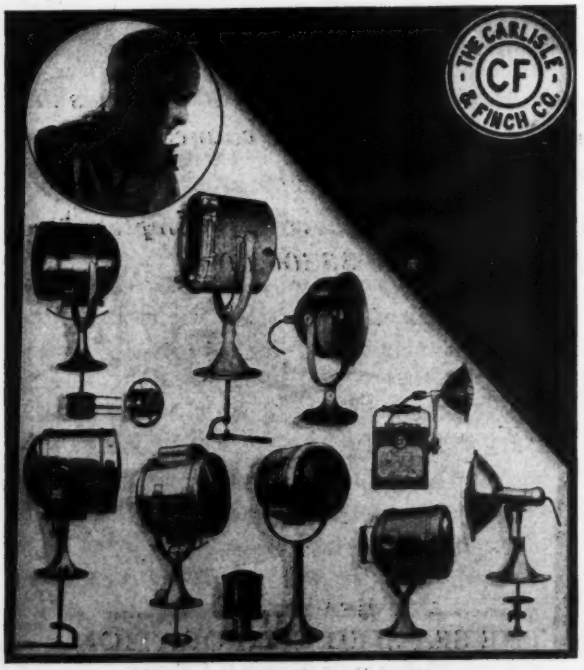
Also Large List of Used Cruisers and Runabouts

Installment Terms—Open Sundays

TOMS RIVER BOAT WORKS, TOMS RIVER NEW JERSEY

Forty Years a Boat Yard

Adjacent to Atlantic City Boulevard — Telephone 180



The girl in the sun looks down on her rivals, the brilliant Searchlights made by The Carlisle & Finch Co. The inky darkness about your boat is stabbed with a piercing white ray of light.

Send for Catalog I—incandescent. Catalog A—arc.

THE CARLISLE & FINCH CO.

251 EAST CLIFTON AVE. CINCINNATI, OHIO

YARD AND SHOP

(*Continued from page* 154)

BRIGHT PROSPECTS FOR THE MARINE INDUSTRY

From a veteran of both the automobile and motor boat fields—Commodore H. Drakeley, manager of the Duplex Marine Engine Oil department of the Enterprise Oil Co., Inc., Buffalo—there came recently an interesting summary of the relative positions occupied in 1930 by the marine and automobile industries.

The opportunities of observation enjoyed by Commodore Drakeley, the data at his command, and his acquaintance throughout the country, all lend considerable weight to his summary.

"The thing that impresses me the most strongly in viewing 1930 business," says Commodore Drakeley, "is the great strength, virility and growing power of the marine field in direct contrast to the situation existing in the automobile industry. As the world knows, the motor car field suffered badly in 1929 from over-production, and forced shipments of cars to distributors with the result that the entire industry is suffering what can best be described as a case of indigestion. The hackney explanation, 'The automobile industry is in its infancy,' became a historical phrase several years ago. The automobile industry has attained full-fledge growth and the present situation is outstanding proof of that fact. Automobile distributors and dealers have not made money in the last year, as a whole, because they have been forced to adopt measures that are un-business-like in the conduct of their business, and are facing 1930 with uncertainty.

"But when we turn to the marine field we find a strong, healthy growing industry just coming into its prime, but one which in actual fact is in its infancy. Instead of over-production we find eager buyers all over the country turning to the water and asking for boats, large and small. We find boat dealers closing business during the winter months, taking orders for spring delivery, making equipment sales. On every hand there is evidence that motor car distributors and dealers are turning more strongly every month to the marine field.

Comodore Howard "Steve" Drakeley

"As an example, the oldest motor car distributor in the state of New York has recently completed a very large contract for distribution of one of the most popular lines of boats, and this distributor also is distributing Duplex Marine Engine Oil in his territory. In Baltimore, one of the most successful automobile distributors in the country, C. H. Reeves & Company, Inc., has turned to the marine field and is distributing Duplex Marine Engine Oil throughout the state of Maryland. In another southern state the same thing exists, while in the middle west, it is safe to say that a majority of the standardized motor boats and other nationally known marine products, will be distributed by the automobile field."

Commodore Drakeley's observations are of particular value because from 1908 to 1925 he was a prominent figure in the automobile industry, both in retail and production capacities. In the days of the old racing giants Commodore Drakeley collaborated with such world-famous drivers as Barney Oldfield, Herb Lytle and Guy Vaughn. He managed racing teams during the days of the famous Vanderbilt and Briarcliff cup races, and the famous 24-hour races in New York. He aided in the development of the famous old Stearns and Stearns-Knight cars, and

(*Continued on page* 158)

Advertising index will be found on 3rd last page

HYDE DISTRIBUTORS

Consult them for Prompt and Efficient Service

SEASIDE PARK, N. J.
Seaside Park Boat & Marine Supply Co.
ATLANTIC CITY, N. J.
Albert Creighton
437 North Massachusetts Ave.
PHILADELPHIA, PA.
Marine Equipment & Supply Co.
116 Walnut Street

NEW BEDFORD, MASS.
Hathaway Machinery Co.
N. Water and Elm Streets
PROVIDENCE, R. I.
John McLeod, Jr.
Edgewood Station
NEW LONDON, CONN.
The Darrow & Comstock Co.
114 Bank Street
JONESPORT, MAINE
William Frost
HARTFORD, CONN.
Clapp & Treat, Inc.
68 State Street
GLOUCESTER, MASS.
Gorton-Pew Fisheries Co.
NEW YORK CITY
C. R. Andrews
143 Chambers Street
ROCHESTER, N. Y.
Rochester Boat Corp.
Charlotte Sta.
BIVALVE, N. J.
Stokes-Schubert
WILMINGTON, DEL.
David A. Hay & Co.
121 Market Street
MOREHEAD CITY, N. C.
Marine Hardware Company
ALEXANDRIA BAY, N. Y.
Hutchinson's Boat Works
RED WING, MINN.
Red Wing Motor Company
CLEVELAND, OHIO
W. F. Meier
1220 Warren Rd., Lakewood
OWENSBORO, KEN.
Wright Machine Co.

JACKSONVILLE, FLA.
Burroughs-McMeekin Company
ST. PETERSBURG, FLA.
Bayboro Marine Ways Co., Inc.
WEST PALM BEACH, FLA.
Palm Beach Mercantile Company
DETROIT, MICH.
Kermath Manufacturing Company
5880 Commonwealth Ave.
EVANSVILLE, IND.
Clarke Gas Engine Co.
FREEPORT, LONG ISLAND, N. Y.
Hughes-Drake Corp.
31 West Merrick Road

PORTLAND, ME.
Boyce & Rutledge Co.
7 Central Wharf
Charles F. Guptill Co.
175 Commercial Street
BOSTON, MASS.
Rapp-Huckins Company
138 Beverley Street

EVERY GENUINE
HYDE
BEARS THIS TRADE MARK

ST. LOUIS, MO.
Webb Hardware Company
806 North Broadway
William Grossmann
1908 Olive St.

KANSAS CITY, MO.
Covert Boat & Engine Co.
1330 McGee Street
CHICAGO, ILL.
W. L. Masters & Co.
800 No. Clark Street

MILWAUKEE, WIS.
Joys Bros. Co.
201 East Water Street
NEW ORLEANS, LA.
Stauffer, Eshelman & Co.
511 Canal Street
Woodward, Wight & Co.
Alker-Donovan Co.
435 Camp St.
GALVESTON, TEX.
Wallace T. Taylor
2007 Strand
VANCOUVER, B. C.
Hoffars, Limited
1790 Georgia St., West

PORTLAND, ORE.
Oregon Marine & Fisheries Supply Co.
105 First Street
The Beebe Company
First and Washington Streets
SAN FRANCISCO, CALIF.
Johnson & Joseph Co.
56 Sacramento Street
SEATTLE, WASH.
Pacific Marine Supply Co.
1223 Western Avenue
Atlas Gas Engine Agency
82 Marion Street
BALTIMORE, MD.
Mahon & Gall
Pratt and Gay Streets
CRISFIELD, MD.
Clarence Sterling & Son
1104 Main Street
NORFOLK, VA.
Moon Engineering Co., Inc.,
533 Front St.
CHINCOTEAGUE, VA.
Conant Bros.
CHARLESTON, S. C.
Marine Supply & Engine Co.
149½ Meeting St.
SAVANNAH, GA.
White Hardware Company
25 Congress St., West
MIAMI, FLA.
Hopkins-Carter Company
Miami Ave. and S.E. 2nd St.
KEY WEST, FLA.
Thompson Fish Co.
TAMPA, FLA.
Knight & Wall Co.
PENSACOLA, FLA.
D. M. Witherill
713 South Palafox Street
MOBILE, ALABAMA
Marine Supply Company
MONTREAL, QUE.
John Leckie, Ltd.
714 Notre Dame Street, W.
TORONTO, ONTARIO
John Leckie, Ltd.
77 Wellington Street
WILMINGTON, CALIF.
Fellows and Stewart
IRVINGTON, VIRGINIA
Bernard Willing
ST. JOHN, N. B.
The Canadian Fairbanks-Morse Co., Ltd.
BRENTFORD, ENGLAND
George Spicer, Market Place
AUCKLAND, NEW ZEALAND
W. R. Twigg, Ltd.
BUFFALO, N. Y.
Edward Magner & Sons
90 Main Street
WASHINGTON, D. C.
Barber & Ross, Inc.,
11th & G Sts. N. W.

Write for a copy of "Propeller Efficiency"

HYDE WINDLASS COMPANY

BATH, MAINE

The
KOLSTER RADIO COMPASS
for
YACHTS and SMALL CRAFT

Dr. Kolster operating his yacht type Radio Compass

Reduction in Price

HAS a normal range of 50 miles and is as accurate in thick or stormy weather as in clear weather. Suitable for vessels as small as 40-footers.

This radio compass is the last word in navigation aids. KOLSTER radio compasses are used throughout the world by many governments including 8 departments of the U. S. GOVT. and yacht owners everywhere.

Write for details, including prices and the many uses to which this compass can be put.

Manufactured, sold and serviced by

FEDERAL TELEGRAPH COMPANY

10700 Helena Ave. CLEVELAND
625 Market Street SAN FRANCISCO

GENUINE MAHOGANY
adds
Beauty
To Motor Boats

The Beauty of Color, Grain and Finish
and
THE BEAUTY OF GENUINENESS

THE MENGEL COMPANY
INCORPORATED
LOUISVILLE, KENTUCKY

YARD AND SHOP

(*Continued from page* 156)

was long a prominent figure in the little automobile world in New York.

For the past five years Commodore Drakeley has been manager of the Duplex Marine Engine Oil department of the Enterprise Works, and is in touch with every marine engine and boat builder and the prominent yards.

"One reason that I am very certain of my ground," continued Commodore Drakeley, "is that Duplex Marine Engine Oil serves 85% of the builders of standardized marine engines and boats, and I know just what these plants are doing. I know from my own survey of the situation since the Motor Boat Show in January that orders are definitely coming in, that distributors and dealers are sending through their releases. I know from our own orders on hand for April and May shipments that more marine engines will be built and more boats will be shipped than in any previous year. I know from my contacts with boat distributors that the retail sales situation is stronger than in any previous year.

"I know from our contacts with marine garages, storage yards and yachting centers that there will be more boats in service this year than in any previous year. It is our business to know these things, and we could not successfully operate our marine engine oil business without such knowledge.

"In 1929, as we all know, the motor boating industry experienced its greatest year up to that time, but as a whole the industry was just getting under way. In 1930 better boats are being built at a lower retail price than in 1929. They are better boats and their power plants are better. Their equipment is more complete. They are more easily handled, and they provide more conveniences. With this we find a lower scale of prices, better distribution, better service facilities, and with it all a very greatly widened retail field.

"There is far more competition in the industry in 1930 than in 1929. This is true of small boats such as the outboard field. It is particularly true of runabouts, and also it is true of both large and small cruisers. The buyer is the man who is profiting, because as the industry grows he is getting much more for his boating dollar.

"We also find a steady change for the better among boat dealers. New vigorous faces are coming into the picture, and the old 'take-it-easy' type of boatman and dealer not only is passing from the picture, but virtually has passed. His place has been taken by modern mechanics, by clean-cut salesmen who know their business, by efficient service methods, and by quick and attentive attendants who take from the owner's shoulders all thought of worry and annoyance. These things are contributing very materially to the creation of an entirely new motor boating industry. We have passed through the first stage: we are now in the second, and in the course of two or three years will emerge into a stage yet to be reached. Each step of progress means more boat owners, and a greater field for the sale of accessories and marine supplies. Beyond any question, 1930 will be by far the biggest year motor boating has ever known, and I am very happy to say that Duplex Marine Engine Oil is enjoying 85% of the field."

OCEAN RACE OFF DELAWARE

On July 2, 3 and 4, the Yachtsmen's Club will celebrate their 21st birthday by a 350-mile annual race to be known as the 21st Annual Ocean Race of the Yachtsmen's Club. It will start from the club anchorage at Wanamaker Ave., Essington (a few miles from the center of Philadelphia), down the Delaware River, reporting to Overfalls and Winter Quarter Lightships, around Cape Charles and up the Chesapeake Bay finishing at a stake boat off Wharton's Creek—the headquarters of the Tristate Yacht Club.

Prizes will be awarded for every boat completing the course and first, second and third prizes as well as a time prize.

Any boat rating 30 or over and 30 feet or over which is qualified to go to sea and whether sail or power, propelled by an internal combustion engine will be eligible.

A stop may be made at Smith's Channel at Cape Charles to refuel, and arrangements are now being made.

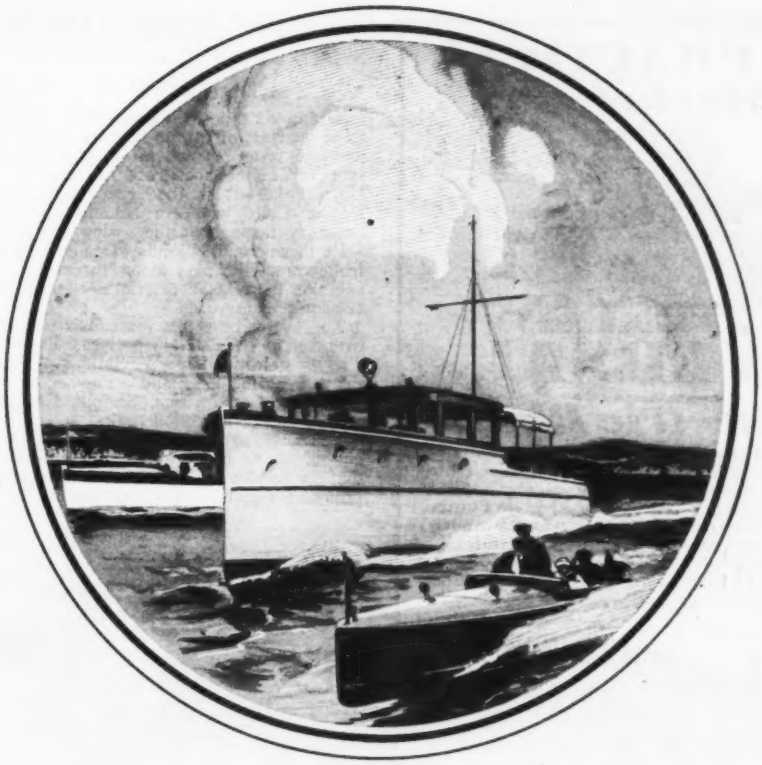
After the finish of the race the Tristate Yacht Club will have the crews and guests of the crews as their guests over the week end, at their clubhouse and farm on Wharton's Creek.

The race will be run under A. P. B. A. rules and all boats will be subject to inspection for the usual safety equipment. Full details and further information as to reporting stations, tides, courses, etc., will be furnished. Arrangements are now being made to have government patrol of the course by boats as well as airships.

Further information may be obtained from H. G. Gardiner, rear commodore of the club and chairman of the Regatta Committee.

(*Continued on page* 160)

Advertising index will be found on 3rd last page



Nationwide · Worldwide · Dependable Auto-Lite Service

A network of Auto-Lite service stations spans the nation's waterways. At every port of any importance all over the world you will find efficient Auto-Lite specialists in starting, lighting and ignition.

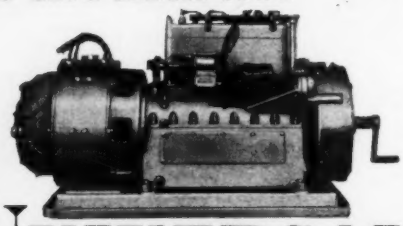
From the simplest electrical fitting to the newest complete double-ignition system, Auto-Lite equipment has set a high standard among mariners and manufacturers of marine motors. . . . The Electric-Auto-Lite Company, Office and Works: Toledo, Ohio . . *Also Makers of DéJon*

Auto-Lite

Starting, lighting & Ignition

Mention MOTOR BOATING, *57th St. at Eighth Ave., New York*

MOST PRACTICAL
on the Market



UNIVERSAL
Electric Plants

Here's what one prominent user (name on request) says after running two plants six hours per day for sixty consecutive days: "I can truly say that your plants give complete satisfaction, even when exposed to all kinds of weather. From my experience of 13 years, I consider your Universal plants the most practical on the market." Trouble-free, reliable and economical, the new Universal Electric Plants are unbelievably smooth as a result of dynamically balanced rotating parts and matched, weighed reciprocating parts.

Universal MOTOR CO.
210 Harrison St.
Oshkosh, Wis.

New catalog gives full details on the new line of Universal Electric Plants

3 New Series

The Flexifour — 1½, 3, 4 and 5 KW
The Super-Four — 7½ and 10 KW
The Six Cylinder — 10, 15 and 20 KW

FROM KEEL TO SUPERSTRUCTURE

Philippine INDOAKO

is the best wood for boats

THERE is not a single desirable quality you might want in a boat wood that Philippine INDOAKO does not possess.

From keel to superstructure, inside and out, Philippine INDOAKO has those qualities that count in good boat construction: beauty of grain and color; exceptional strength, toughness and durability; light weight and minimum absorption of water; resistance to teredo attack; freedom from staining around fastenings; and, above all, *reasonable price*, because it is imported *duty-free*.

But why go on? Most boat builders use Philippine INDOAKO regularly. On that next boat of yours make sure that Philippine INDOAKO enters into the construction.

Write today for full information!

INDIANA QUARTERED OAK CO.
222 EAST AVE., LONG ISLAND CITY, N. Y.

YARD AND SHOP

(*Continued from page* 158)

SPEEDBOAT SERVICE IN LONDON

Within six miles of the centre of London there is a fine lake—three quarters of a mile long and about 300 yards wide, in some parts 15 feet deep and in others 4 feet deep, and it is an ideal spot for motor boat race meetings and is called the Welsh Harp Lake. It is the headquarters of the British Outboard Racing Club, who are holding meetings there every second Saturday throughout the spring and summer.

Furthermore, thousands of people via automobiles, omnibuses, trolleycars, etc., pass along two sides of the lake, because on one side there is an arterial road and on the other side one of London's main roads.

The exclusive rights for running speedboats have been taken over by the Welsh Harp Speed Boat Company the managing director of which is J. W. Shillan. A number of 22½-foot Dart Craft are being used, and a number of (W) rightcraft Outboard Hulls made at Ipswich, Suffolk, England with Elto Outboard motors as the propelling units.

Londoners will now be able to take trips in speedboats without having to go 50 miles to the seaside, and it is anticipated that the service will be running daily from 10 a.m. to dusk with profitable results to the organizers.

Passengers on the first trip of the runabout which inaugurated the Welsh Harp speed boat service at Hendon, England. J. W. Shillan is behind the project

RADIO EXECUTIVE PURCHASES STOCK CRUISER

A new Matthews 46 enclosed bridge double cabin cruiser has just been purchased by Powell Crosley, Jr., president of the Crosley Radio Corporation for use in Florida waters. This fine craft has complete cruising accommodations for eight persons including the crew, and is used by Mr. Crosley in his new home at Sarasota for week-end excursions and fishing trips with his sportsmen guests. Power is supplied for a speed of 15 miles per hour. A short wave length broadcasting apparatus has been especially installed by Mr. Crosley in order to enable him to keep in direct touch with his factory at all times. He has spent a considerable amount of money in building a special yacht basin connected to his estate on the west coast of Florida, and it has become a show place for visitors to Sarasota.

BOATS EXHIBITED AT DULUTH AUTO SHOW

For the first time in boating history motor boats were exhibited at the annual automobile show in Duluth, Minnesota.

It remained for the Minnesota Marine Corporation of Minneapolis, active Chris-Craft distributors for the northwest territory, to introduce their boats in this popular show. The craft were shipped up from Minneapolis for this occasion.

The 26-foot boat had been on the floor but one day when it was sold to an enthusiast. Orders were taken right and left through the entire duration of the show. M. F. Mowry, president of the corporation said: "We were never so surprised before; the boats were the hit of the show, there being a continual crowd around the Chris-Craft exhibit from early morning until we closed the doors at night."

It will be remembered that Mr. Mowry's company recently ordered a full trainload of motor boats for his territory. This shipment is now being made ready at the plant of Chris Smith & Sons Boat Company, Algonac, Michigan.

(*Continued on page* 162)

Advertising index will be found on 3rd last page

A HALL-SCOTT ENGINE IS *ALL* ENGINE . . .

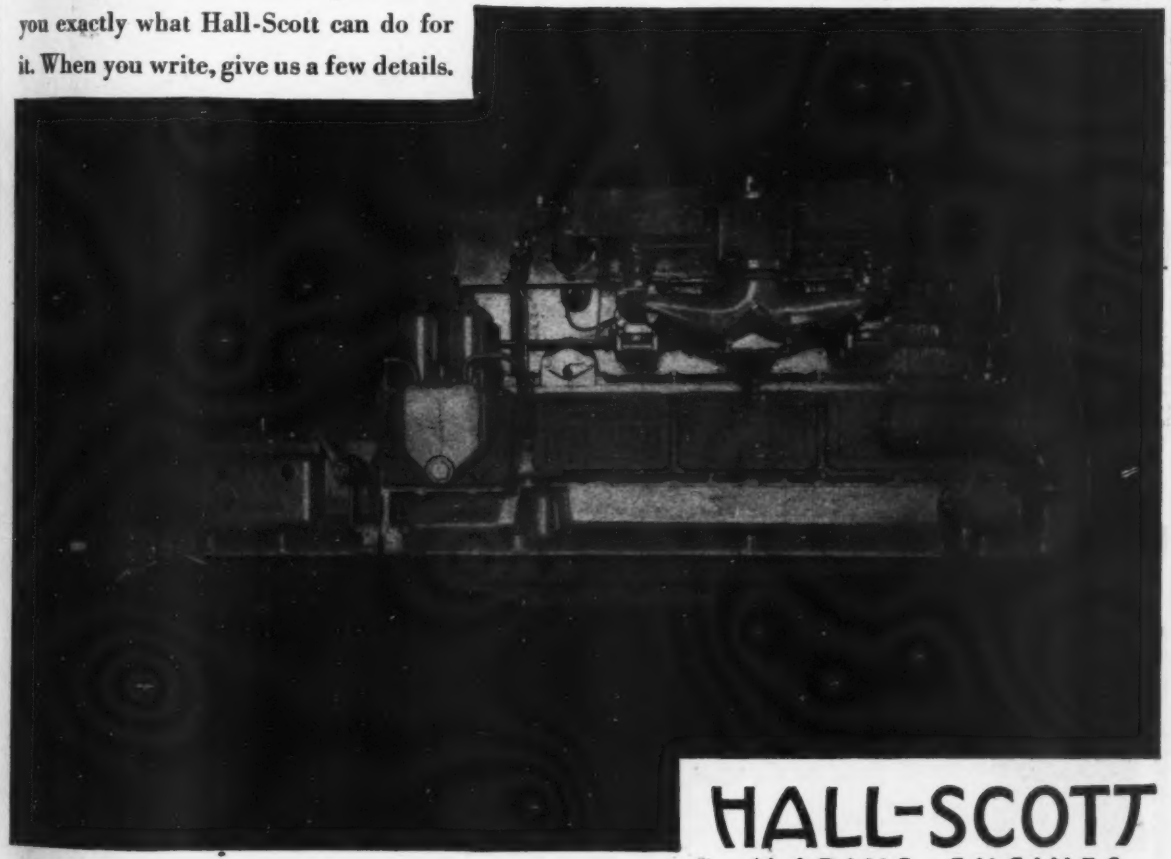
It looks rugged, because it *is* rugged. It is staunch and strong . . . strong enough for any emergency it may ever be called upon to meet. That's the way Hall-Scott builds for you.

A Hall-Scott engine gives you a flexible powerplant . . . one that responds instantly to your controls. It will require almost no care, beyond an occasional oiling. You can depend on it under any conditions, and you can expect it to give you utmost pleasure from your boat under way.

Years of experience in the marine field, both commercial and pleasure, qualify Hall-Scott to build that sort of engine for your boat.

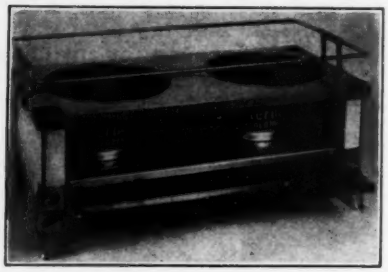
Whatever your craft . . . runabout, cruiser, yacht . . . we will be glad to tell you exactly what Hall-Scott can do for it. When you write, give us a few details.

THE HALL-SCOTT REDUCTION GEAR • *This deserves a special word. It is so perfectly designed that every ounce of your engine's power finds its way into your propeller shaft. It is so perfectly constructed that noise and vibration are kept down to an absolute minimum. These are important things to remember when you're thinking of engines!*



HALL-SCOTT
MARINE ENGINES

HALL-SCOTT MOTOR CAR COMPANY
Division of
American Car and Foundry Motors Company
217 West 57th Street • • New York City



NOW YOU CAN COOK

THE stove pictured here is made by the "Sterno" Company. Its reception at the Motor Boat Show was enthusiastic. ¶ It is an ideal stove for your boat because it is small. Its fuel is cheap, clean and safe. "Sterno" fuel in tins, 25c, can be bought at almost any store, anywhere. It burns for three hours or more and is odorless. ¶ This two burner stove is nearly fool proof. It may safely be tipped upside down. It will not blow out. The fuel is not explosive or even liquid. ¶ Stove is finished in white enamel, easy to keep spotlessly clean. Has brass guard rail to keep dishes in place when boat is in motion. Dimensions are, length 20", width 11" and height 10". Price $10.00.

Dealers given substantial discount

TOPPING BROS.

159 Varick Street **New York City**

ZUNDEL

READYKOOK Galley Stove

PUT a READYKOOK in your galley or carry one in your runabout. Fastest selling gasoline stove on the market. Two burners. Requires no generating or pre-heating; no preparation of any kind,—just open valve and light burner.

9 in. high, 12 in. wide. 27½ in. long.

Price $12.50

Use RAIN-SPAR salt resisting varnish. Lower priced than any other varnish of equal quality. Dries hard in 24 hours.

Write today for 1930 illustrated catalog. Special discounts to established marine dealers, boat builders and yards.

R. W. ZUNDEL COMPANY

Wholesale and Retail Distributors of Standard Marine Products

47 WHITEHALL ST. **NEW YORK**

Telephone: Bowling Green 9157

DE LUXE YACHT LOG

For Pleasure Entries.

Keep a record with notes, sketches or photographs, the interesting happenings of cruises, fishing parties or races.

First Of Its Kind

No other log like it. Printed on heavy art paper, bound in real calf. Cover embossed with your club burgee and house flag, in gold leaf and oil colors. An artistic, durable and practical addition to your library. Grows more interesting as records accumulate.

Size 8" x 11"
Price $12.50

PUBLISHED YEARLY—Be sure and send the name of your boat, yacht club, and design of your house flag in colors, with your order.

Marine Publishing Co., Box 265, Beverly Hills, Cal.

YARD AND SHOP

(Continued from page 160)

WEATHER-PROOFING THE IGNITION SYSTEM

The following is the story of the development of Textolite Caps for the protection of spark plugs and distributor heads as told by the inventor R. S. McNeil, of the General Electric Company, Bridgeport, Conn.:

"One day in the late summer of 1927 I had occasion to make a business trip to New York City. I left my car parked in front of the Edison Lamp Works of the General Electric Company at Harrison, N. J.

"During the afternoon a terrific rain storm commenced, and continued throughout the afternoon and most of the night.

"I did not reach Harrison again until about midnight. It was impossible to start my car on account of the rain having beaten in under the hood, wetting the spark plugs and distributor head.

"For an hour I worked in the pouring rain endeavoring to dry the distributor head and spark plugs so that I might start my car, but, finally I had to call a taxi to take me to my home.

"My impression of certain caps which I had used was not very favorable so I decided to make some Textolite Caps that I knew would live as long as the distributor head.

R. S. McNeil, inventor of the G. E. Textolite Caps for ignition cables

"At this time I was working on certain socket parts and Radiotron tube bases. My preliminary sets of covers for the ignition cable were made of these socket husks. The spark plug covers were made from the Radiotron tube bases.

"For several weeks I operated my car with these two devices in order to prove the efficiency of this scheme. During this test we had unusually severe rain storms. My car was kept out day and night and never once was there a single suggestion of a stall from moisture.

"Thinking it would be advisable to redesign both bases I attempted to decide upon dimensions that would make these caps fit all distributor heads and spark plugs. The present design is the result of my work.

"Single cavity moulds were made for each piece. Enough samples were produced to equip possibly one hundred cars. They were owned by my friends and business associates. The results were perfect.

"In the two years that these spark plug and distributor head covers were used no one who had these covers installed on his car, experienced any inconvenience from rain, snow or moisture.

"In Northern New Jersey, during the year 1928, unusually heavy rain storms were experienced which repeatedly stalled many of the cars in our parking space.

"I made it a point, on several occasions, to watch the number of cars stalled and discussed the remedy with the owners of these cars. Needless to say, after each storm, my stock of samples was depleted.

(Continued on page 164)

WHEELER PLAYMATES

PLAYMATE TIME

When "Playmate Time" rolls around, everybody will be afloat. How about you—will you be there? Right now is the time to select your "Playmate" for the pleasure season just ahead. No matter what kind of a boat you want you'll find it among the snappy new "Playmate" models . . . everyone of them smart, staunch, trustworthy and sea-resisting.

Run down to "Playmate Harbor"; let us show you how these remarkable boats are made. See for yourself the materials we use, see with what scrupulous care every detail is worked out, see them in action! Demonstration by appointment.

Write for Catalog A

MODELS

22' x 7'—Sedan and Open Models.
25' x 8' 2"—Single and Short Cabin and Sedan Models.
29' x 9' 3"—Single and Short Cabin and Sedan Models.
33' x 9' 8"—Single and Double Cabin and Sport Models.
36' x 10'—Single, Sedan and Double Cabin Models.
39' 11" x 11'—Single, Sedan and Double Cabin Models.
47' x 12'—New Custom Design Commuter, Sedan and Double Cabin, Single and Twin Screw.

$1,950 — $23,500

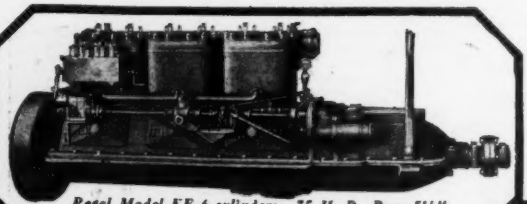
WHEELER SHIPYARD
Distribution Points:

Boston—Stearns Marine Service Co., 19 Central St.
Syracuse—C. E. Brown, James St. & Oswego Blvd.
Houston—Tracy Parks, 2nd Natl. Bank Bldg.
Miami—Couzens & Daly, 29 Hotel McAllister Arcade.
Detroit—Detroit Marine Garage, 7435 Jefferson Ave., East.
Los Angeles—Alfred E. Mackenzie, 1300 Angelus Ave.

WHEELER SHIPYARD

FOOT HARWAY AVE. BROOKLYN, N.Y.

PHONE MAYFLOWER 7600



Regal Model KF 6-cylinders. 75 H. P. Bore 5½". Stroke 7".

REGAL

POWER *Plus* LONG LIFE

Regal Engines are built to outlast your boat. Conservative horsepower ratings and generous bore and stroke guarantee an extra margin of power for emergencies.

REGAL MARINE ENGINES

18 Models—1 to 6 Cylinders—2 to 75 H. P.

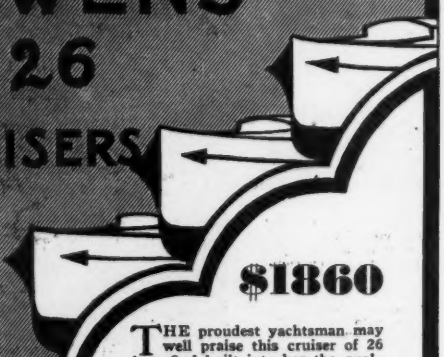
The Regal line of 18 models includes a size exactly suited to your hull. Rugged and compact in construction, they are built to give you the utmost in smooth, flexible and dependable performance at a minimum cost per mile. High speed reversing gears, silent chain-drive timing gears and gear oil pump lubrication are but a few of the structural refinements.

Write today for engine catalog and details of the Regalite ¼ K.W. Air-Cooled Electric Lighting Plants.

REGAL GASOLINE ENGINE COMPANY
Established 1901
74-82 WEST PEARL ST.
COLDWATER, MICHIGAN

REGAL

OWENS
26
CRUISERS



$1860

THE proudest yachtsman may well praise this cruiser of 26 feet, find built into her the quality, fine materials and comforts of yachts selling for a thousand dollars or more.

Fast, up to the minute, equipped for every comfort, including berths, galley, toilet and lots of real privacy this cruiser is mahogany over white oak framing with bronze fastenings throughout. Speed 16 miles per hour. Equipped with 44 h.p. Gray Motor.

An unusual sales plan offering the boat direct from builder to you places it well within your reach.

Only a few more left for quick delivery — who will get them? Write for particulars or visit our factory.

Owens Boat Co.
Annapolis Maryland

YARD AND SHOP

(*Continued from page* 162)

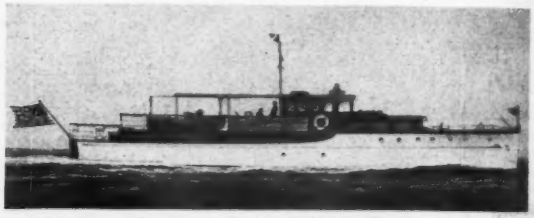
ANOTHER DIESEL YACHT FOR THE LAKES

A striking addition to the growing list of modern yachts on the Great Lakes is the new Lotowana III, designed for Ralph T. Friedmann of Milwaukee, by Cox & Stevens, Inc., and being built by the Burger Boat Company of Manitowoc, Wisconsin, for Spring delivery.

Lotowana III is of the following dimensions: Overall length, 84 feet-5 inches; L. W. L., 83 feet-0 inches; beam, 15 feet-0 inches; draft, 5 feet-2 inches.

Good freeboard, spacious deckhouse, large enclosed completely equipped pilot house with navigating bridge adjoining it, a long clean deck aft of amidships with a substantial and well protected entrance to the staterooms in the midle of this deck, are features of the yacht. The straight stem, transom stern, well proportioned deckhouse and trunk give Lotowana III the appearance of a substantial yacht that may be used on coastwise waters as well as the Great Lakes.

The navigating bridge extending full width of the vessel and giving a clear view of the bow, is another feature of the boat. Complete piloting and navigating equipment is provided. A special installation of Zenith radio to enable owner and his guests to enjoy the same in deck house, pilot house, staterooms, or on deck, is provided. The boat has been specially designed for extended cruises on the Great Lakes with a good turn of speed, and every attention has been given to safety and seaworthiness. She will fly the pennant of the Milwaukee Yacht Club.



Lotowana III, an 84-footer being built for Ralph T. Friedmann of Milwaukee from designs by Cox & Stevens

Two large double staterooms the full width of the ship, well lighted and ventilated, and one single stateroom as well as two baths, each with shower, provide adequately for the comfort of the owner and guests. The simple decoration of these quarters will be particularly attractive and up-to-date in every particular.

The specially designed aluminum and chromium plated watertight ports in the raised deck are a feature of the boat's construction and attention to detail.

Forward of the engine the crew is given generous airy accommodations with ample space for the galley, exceptionally large refrigerator, lined with monel metal, and necessary stowage space for stores and fuel. A separate well equipped cabin is provided for the captain.

The vessel is planked in mahogany, with mahogany deckhouses and teak decks. On deck she will carry a 15-foot cedar power tender and a 12-foot dinghy, specially designed and built by the Sturgeon Bay Boat Works.

The main propelling machinery consists of two 8x10 Winton Diesel motors of 200 h.p. each, mounted on specially designed steel foundations. These motors will drive the vessel easily at a speed of 15 miles.

In the spacious engine room the Winton auxiliary machinery will include two 5 K.W. generators and two air compressors. There is also an automatic sanitary and fresh water service, electric windlass, and Exide Ironclad storage batteries, Sirroco blower, special compressor for large Strombos horn, electric tachometers, Servel pyrometers, Servel ice machine, 1 h.p. large bilge pump, etc.

Sufficient fuel capacity is provided for a cruising radius of about 1,200 miles, and fresh water capacity of over 550 gallons.

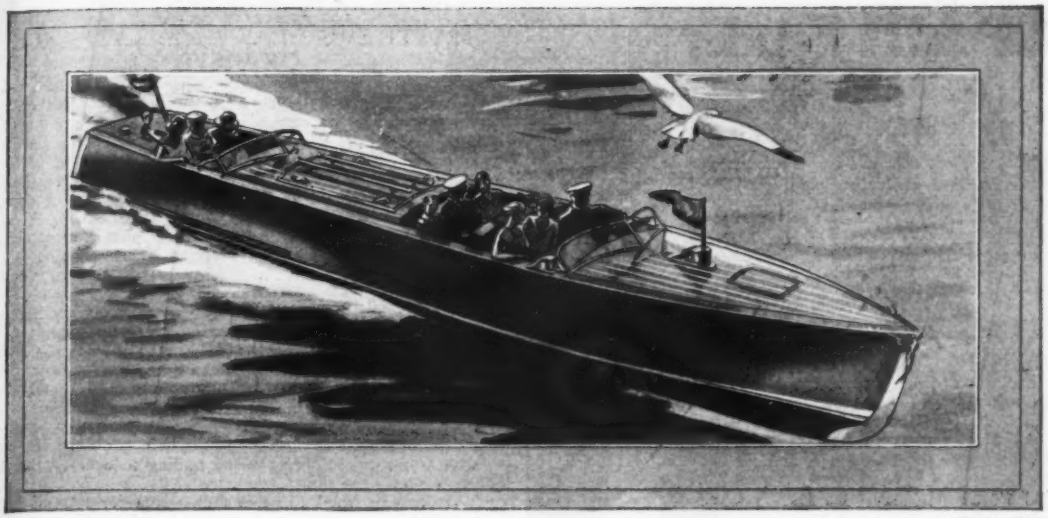
A complete hot water heating plant is provided throughout the vessel, equipped with oil burner, as well as automatic hot and fresh water systems and complete electric lighting equipment.

The very latest fire equipment is installed, consisting of a complete CO two system and a large number of Foamites. The only gasoline carried is on deck and pipes outboard along garboard to the generators which will be equipped with Oberdorfer back-fire traps. No gas lines will pass along bilges.

NEW A. P. B. A. MEMBER

At a recent election of the American Power Boat Association the Charleston Motor Boat Club of Charleston, South Carolina, was welcomed into membership in the national organization.

(*Continued on page* 166)



A PROMISE FULFILLED . . . AND A PLEDGE FOR THE FUTURE

Less than a year ago, the tremendous resources and prestige of Dodge were solemnly pledged to the development of the motor boat industry. Dodge promised to bring to the manufacture of motor boats the same methods of mass production so successful in the automobile industry.

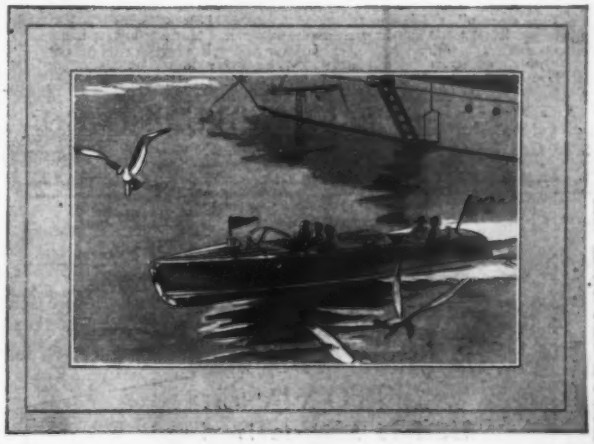
Dodge promised still faster and better boats at prices that would permit everyone who can own a motor car to enjoy the thrill of motor boating. Dodge promised a 16-foot boat, mahogany planked from stem to stern, with bottoms double planked, frames and ribs of stout white oak, speed up to 25 miles an hour—and all at a price less than a thousand dollars.

Today, every word of that amazing promise is a reality. The Dodge 16 foot Runabout does all that was promised and more! It sells not for a thousand dollars but well under that at $945.

Dodge promised other boats in larger sizes at prices just as amazingly low compared with former standards. Dodge 21 foot, 25 foot and 28 foot Runabouts described on this page are amazing examples of the power of mass production to reduce prices.

Above all, Dodge promised to produce these boats in quantities so vast that they were thought impossible even a year ago. With an unbroken stream of boats pouring out of the largest motor boat plant the world has ever seen, today that promise has been fulfilled. Already more Dodge Boats have been sold than have ever been sold before by any other maker in an entire year.

Write for the new Dodge Catalog that illustrates and describes all Dodge Boats. If you sell or would like to sell boats, ask if your territory is still open—for some dealers and distributors are still being appointed. Horace E. Dodge Boat & Plane Corporation, General Sales Department, 21 W. 46th Street, New York, N. Y. Works: Newport News, Va.



At top—Dodge 28 ft. Speedster—300 h. p. engine—45 m. p. h. Price, F. O. B. Works, $4500. 28 ft. model with 165 h. p. engine—32 m. p. h.—Price, F. O. B. Works, $3700.

Above—Dodge 16 ft. Runabout—40 h. p. engine—25 m. p. h.—Price, F. O. B. Works, $945.

OTHER MODELS

25 ft. Runabouts; with 125 h. p. engine—speed 32 m. p. h.—Price, F. O. B. Works, $2500; 165 h. p. engine, speed 38 m. p. h.—Price, F. O. B. Works, $3200.

21 ft. Runabout with 115 h. p. engine—speed 35 m. p. h.—Price, F. O. B. Works, $2100.

Victoria Sedans, speeds 34 m. p. h. to 38 m. p. h.—Prices, F. O. B. Works, $3900 to $5300.

DODGE BOATS

SAF-AIR Fender

the finest protection for the finest Boats

Fine boats deserve the best of care. The durable resilient Saf-Air Fenders give perfect protection. No cork stained hull, no rope grease. 'Air-Filled" Fender gently pushes boat away from dock—no bumping. Half weight of ordinary fender. Buoyant, clean. Built like a bus tire. Inflate once a year. Encased with heavy duck.

Two sizes 6" x 22" (boats up to 50 ft.) $15.00; 8" x 23" (boats up to 100 ft.) $20.00. Larger made to order. Many giving perfect service after three years use. Guaranteed. If your dealer cannot supply you order from factory. Write today for folder "How to Use Fenders."

APPLIANCE MANUFACTURING CO.

5580 Greenway Avenue — Detroit, Michigan

15 HP TO 240 HP — POWERED BY Buffalo — $480.00 TO $2800.00

A Symbol of Dependable PERFORMANCE

Buffalo Marine Engines

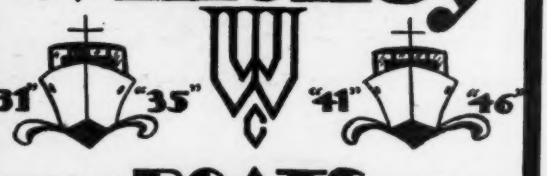
Hundreds of owners are proclaiming their dependability, economy and service.

Literature upon request

BUFFALO GASOLENE MOTOR CO.

1286 Niagara Street — Buffalo, N. Y.

Whitney



CUSTOM **BOATS** STANDARD

Whitney Woodcraft Corp.

EAST HARTFORD — CONNECTICUT

YARD AND SHOP

(*Continued from page* 164)

MATTHEWS PLANT ATTRACTS SCORES OF VISITORS

The modern production methods employed at the plant of the Matthews Company, builders of the popular Matthews 38 and 46-foot cruisers, are attracting scores of visitors, according to reports from Port Clinton, Ohio, where the yards are located.

Not alone is the casual visitor greatly impressed with the size of the plant, so far as actual floor space is concerned, but he is left somewhat aghast at the tremendous number of departments necessary to the manufacturer of the Matthews.

Each department, and in fact, each phase of production, is supervised by experienced craftsmen. This training and background is responsible for the fine construction for which Matthews are noted.

Every modern woodworking machine and many specially designed machines are included in the Matthews equipment. Complete machine shops, forge shops, planing mills and very modern joinery, sheet metal and upholstering shops are maintained.

In spite of the great amount of machine work done, hand work has by no means been eliminated. As Scott J. Matthews, president of the Matthews Company, explains: "We have perhaps gone to the limits of reducing hand labor. There are very few things in a boat that can be fabricated by pulling a lever or having a die stamp produce the finished article.

"Working in wood still demands a superior type of craftsmanship. We have never satisfactorily found a substitute for good skilled hand labor. One of the fundamental policies of our company has always been to develop our men to produce a finer article rather than cut corners to reduce cost. We believe the reputation the Matthews Cruisers now enjoy has long since confirmed our judgment of what constitutes good boatbuilding practice."

That the Matthews Cruiser does enjoy exceptional popularity can easily be decided by a visit to the Bruns-Kimball showrooms, New York distributors, with a large establishment at Fifth Avenue and 15th Street. All day long dozens of people come in to see the Matthews—not merely casual visitors, but people actually in the market for a fine boat.

William S. Bruns, president of Bruns-Kimball & Co., announced recently that in response to the great interest in the Matthews, they have contracted for the largest number of cruisers ever ordered by them in one year from one manufacturer.

One hundred boats will be shipped from Port Clinton to New York, in the neighborhood of $1,000,000 worth of fine craft. In connection with this point, the service of the Bruns-Kimball organization is of interest.

Within two hours after the boat arrives in New York on a flatcar, the Bruns-Kimball crews have lifted the boat from the car and lowered it into the water, have given it a preliminary tune-up and are ready to test it preparatory to turning it over to the purchaser.

Bruns-Kimball & Co., in anticipation of the increased business suggested by the crowds which visit their showroom to inspect their boats, have also enlarged their service facilities so that their customers are not only guided by the Bruns-Kimball engineers in securing the boat and engine best suited to their needs but enjoy the benefits of the complete service organization of this old established house.

LYON-TUTTLE BUY B. F. WOOD YARD

With the purchase of the famous B. F. Wood yards, owned and operated at City Island by the Wood family since 1860, by the Lyon-Tuttle Corporation, the Lyon organization now boasts one of the most modern and complete yacht yards around New York.

A feature of the B. F. Wood yards is the four marine railways—capable of hauling boats up to 200 feet in length, regardless of tide conditions, since even at low tide there is eight feet of water.

The original Lyon-Tuttle yards and shops will be continued with the same force of craftsmen, for the maintenance of boats up to 100 feet.

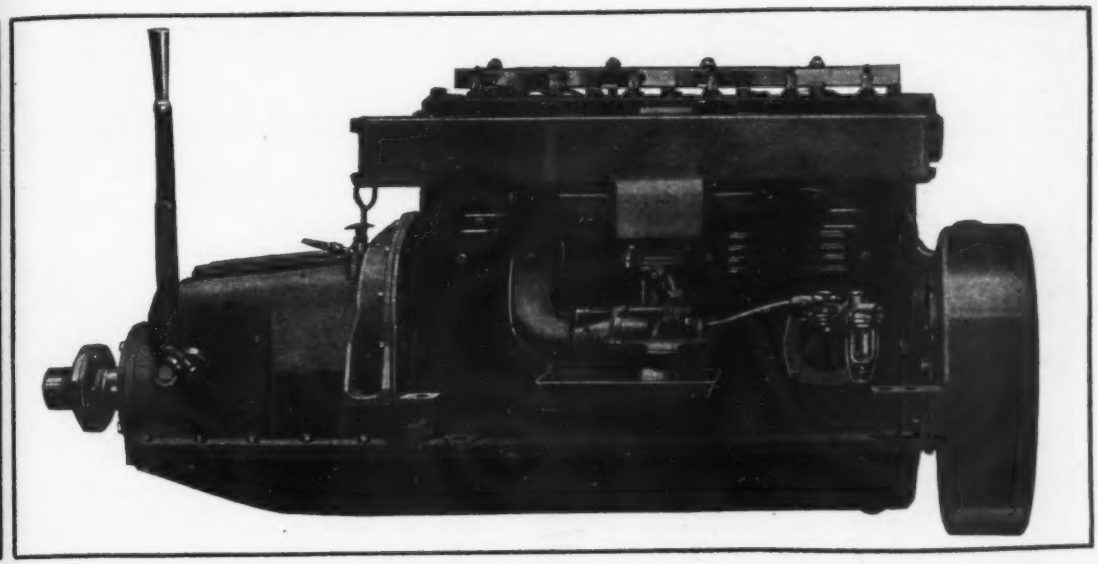
The Wood yards will have no change in personnel, except in executive positions, under Lyon ownership. With its modern and complete equipment, it will make possible the servicing of boats up to 200 feet, or 300 tons, at any hour of the day or night—without delay and regardless of tide conditions.

The enlarged facilities secured through the acquisition of the Wood yard enables the Lyon-Tuttle Corporation, already renowned for the high quality of its service, to care for all repair and reconditioning work with even greater efficiency and speed.

Howard W. Lyon, president of the Lyon-Tuttle organization, is well known also as the president of Howard W. Lyon, Inc., builders of the popular de luxe Sea Lyon runabouts.

(*Continued on page* 168)

Advertising index will be found on 3rd last page



Two BUDA Sixes

FULLY EQUIPPED

In these Buda 6-cylinder marine engines you obtain a strong sturdy power plant at a reasonable price.

You have a 3-inch crankshaft and 7 main bearings. You have carburetor drip pan, backfire protector, oil sump pump, gasoline filter and fuel pump. The price includes control panel with indirect lighting. Where can you duplicate such a value at this price?

Buda marine "Hivelo" engines develop their maximum horsepower at 3000 R.P.M. as follows: Model HM-260 — 75 H.P. Model HM-298 — 85 H.P.

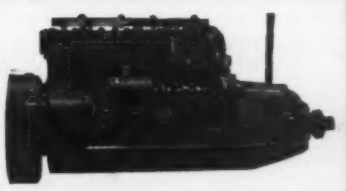
Model HM-260, 3½ x 4½, 260 cu. in. piston displacement at $745.00, fully equipped, f. o. b. factory.

Model HM-298, 3¾ x 4½, 298 cu. in. piston displacement at $775.00, fully equipped, f. o. b. factory.

Write today for bulletins.

$745.
F.O.B. FACTORY

$775.
F.O.B. FACTORY



Branch Offices:

30 Church Street - New York, N. Y. 664 Mission Street - San Francisco, Cal.

THE BUDA CO.
HARVEY, ILLINOIS
CHICAGO SUBURB
ESTABLISHED 1881

CUSTOM BUILT
for
Discriminating
Yachtsmen
Only One Quality!
For three generations yachtsmen of extraordinary judgment have had their yachts built in the ship building yard of M. M. Davis and Son. Have received a most exceptional degree of quality and craftsmansh p -- a most fair treatment of price.
Write for list of power and sail yachts we have built.
Masterpiece of the Sea
Every yacht built by M. M. Davis and Son is truly a masterpiece of the sea, the work of artis tcraftsmen, a creation of beauty, grace and seaworthiness.
M. M. DAVIS & SON
For Three Generations
CUSTOM BUILDERS
of fine Sail and Power Yachts
Solomons
Maryland

We are distributors for

GOODRICH

Cutless BEARINGS

Another B. F. Goodrich Product

Topping Brothers
159 Varick Street
New York City

The ORIGINAL SPEED SEA SKIFF

—*the*
KING "28"

THE KING 28-footer, as well as all King Sea Skiff Cruisers, are constructed under our original sea skiff patents, which guarantees ruggedness, absolute safety, remarkable performance and unusual seaworthiness.

Lap-strake construction; all copper and brass fastenings; ribs of steam-bent white oak; heavy spruce bottoms; mahogany trim. Outfitted with all the latest refinements, these beautiful Sea Skiff Cruisers represent the highest type of marine craftsmanship.

Send for Literature, Prices, Etc.

KING BOAT WORKS **Highlands, N. J.**

YARD AND SHOP

(*Continued from page* 166)

MARINE TAXI SERVICE

A corporation has just been formed for the operation of a marine taxi business in New London, Connecticut, named the Du Mont Marine Service, Inc. The new company is headed by Donald H. Du Mont, president, of New London and Montclair, N. J. The other officers of the company are Bruce T. Du Mont, vice-president and John T. Mabey, treasurer, of Montclair, New Jersey.

This company whose activities embrace a unique field, that of marine taxi service, will operate from the Municipal Pier at New London, Conn., giving dependable boating service at all hours during the summer months beginning May 1 to the Griswold Hotel Pier at Eastern Point, Fisher's Island, Groton Long Point, Ocean Beach, and other adjacent river, harbor and shore resorts. The company is also the authorized sales representatives for a well known line of Sea Skiff runabouts, sedans and cruisers, outboard boats and motors, fire extinguishing apparatus and other associated products such as marine instruments and supplies. Permission has been received from the city of New London to place gasoline tanks on the Municipal Pier with storage tanks under water.

The Du Mont Company has already taken delivery of its first boat, a Banfield 26-foot Sea Skiff sedan which has a seating capacity for twelve passengers. This boat is powered with one of the new eights, giving a speed in excess of 30 miles per hour. This boat was recently on display at Montclair, N. J., where it drew an immense amount of interest. Additional boats are to be added as the demand warrants and the company is contemplating the establishment of scheduled service between New London and Fisher's Island to augment the present ferry service.

CONSTRUCTION STARTED ON CRAGSTON CLUBHOUSE

L. C. Stowell, chairman of the Committee on Building of the Cragston Yacht and Country Club, has announced that the contract for remodeling the Morgan manor-house into a modern up-to-date building has been let and that the work is now under way. It will be pushed rapidly under the supervision of Trowbridge and Livingston, architects, in order that it may be open to the membership at the earliest possible moment.

When completed, ample dining facilities will be provided in the new clubhouse for 300 people and special attention has been paid to secure plenty of room for dancing. The lounge is spacious with large open fireplace offering real comfort and hospitality for late fall evenings. This room is situated at the east end of the clubhouse overlooking the Hudson and the nine-hole golf course. Open porches and terraces provide other points from which pleasing views may be had up and down the Hudson River.

Interiors are being worked out with extreme care, the motif in decoration and furnishing being early American, reminiscent of the historic area in which the club is located. Announcement of the opening day will be made later.

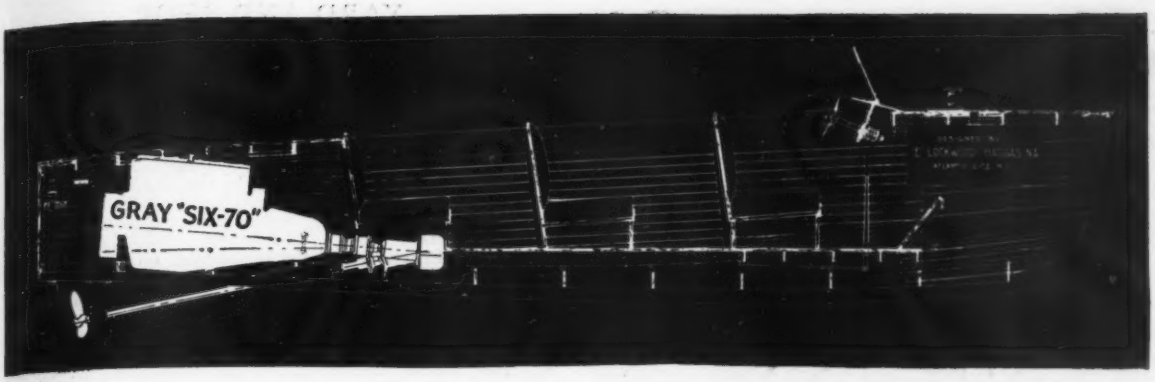
NEW GAR WOOD DISTRIBUTORS

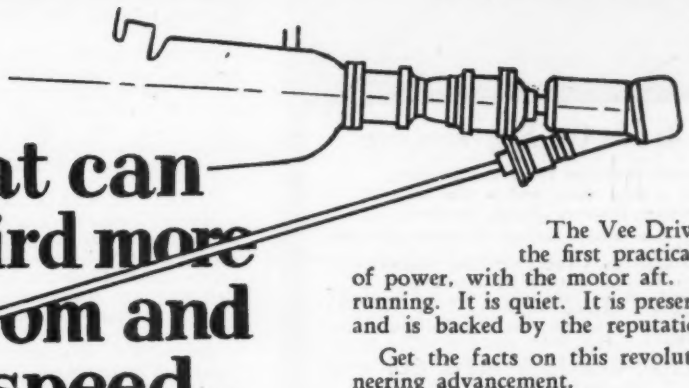
During the course of the past sixty days Gar Wood, Inc. have appointed two concerns which are Packard Motor Car dealers as distributors for Gar Wood speedboats. One of these is J. Harry Cook of Cooperstown, N. Y. who is looking out for the sales and service of Gar Wood runabouts on Lake Otsego, and the other is the Mooers Motor Car Company of 1114 North Boulevard, Richmond, Virginia. Mr. Mooers of this company decided to branch out into this business and picked out Gar Wood boats as being a quality product, well qualified to go along with Packard motor cars. They are displaying a model 30 Baby Gar on the floor of their Richmond showroom.

They have also appointed the Hartford Marine Service Company, Hartford, Conn. as dealers to cover sales and service in that vicinity. The Jersey Marine Corporation, 122 Branford Place, Newark, N. J. has taken over the distributorship of Gar Wood boats in northern New Jersey and are displaying one of their runabouts in their show room. The Tyler Company has just opened a new show room at Baltimore, Md., under the direction of Alan E. R. Tyler. These people have just been appointed sales and service representatives in Baltimore and vicinity and displayed one of the 42-mile Gar Wood runabouts at the Baltimore show. Another new dealer is the Sands Point Shipyard, Inc. located at Port Washington, Long Island. Their territory covers Manhasset Bay, Little Neck Bay and Hempstead Harbor and several of the Gar Wood models are being displayed in their new sales and service building just erected across the road from their shipyard.

(*Continued on page* 170)

Advertising index will be found on 3rd last page





Your Boat can have a third more usable room and greater speed..

The talk of the boating world! Note the diagrams, top and bottom.

The motor is placed in the stern of the boat.

The center of the boat is no longer sacrificed for engine space.

Vee Drive motor position means the motor and the load in proper position. More speed—noticeably more speed—and greater maneuverability, ***more usable room in the boat.***

Vee Drive motor position means doubling the pleasure of boating. The entire party is all together. There is but one forward cockpit, which is always dry.

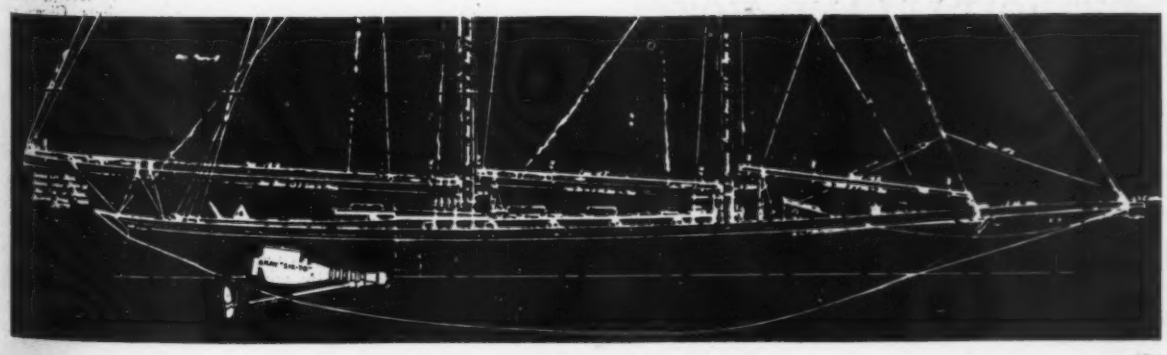
The Vee Drive is especially adapted to Auxiliaries. It permits the engine to be placed under the cockpit floor at a proper angle, and entirely outside of the cabin.

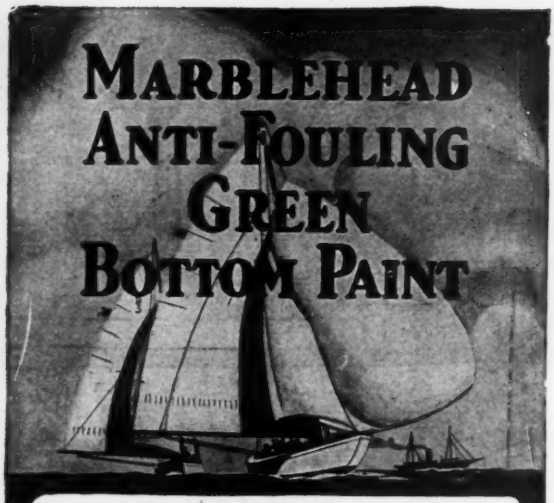
The Vee Drive by Gray is the first practical application of power, with the motor aft. It is smooth running. It is quiet. It is presented by Gray and is backed by the reputation of Gray.

Get the facts on this revolutionary engineering advancement.

Gray Marine Motor Co.
680 Canton Avenue
Detroit, Mich.

GRAY Vee Drive





Saves Its First Cost Many Times Over

because it covers twice the Surface, lasts a long time, and is the most effective Bottom Paint produced.

"The highest grade product that can be used."—JOHN H. WELLS, Inc.
"Gives perfect satisfaction."—THE MATTHEWS COMPANY.
"Will use it exclusively."—HACKER BOAT COMPANY.
"We are satisfied with the results obtained from this remarkable paint."—HENRY J. GIELOW, Inc.
"Unable to find anything that will stand up as your paint does."—GEO. LAWLEY & SON, CORP.

STEARNS-McKAY MFG. CO.
Marblehead, Mass.

STROMBOS
Compressed Air Marine Signal

Made in 15 models and tones for all types of sea, river and lake craft. Send for catalog.

J. THOMAS RHAMSTINE*
Successor to American Strombos Co.
504 EAST WOODBRIDGE DETROIT

In Detroit . . . the
DETROIT-LELAND HOTEL

Seldom, if ever, has any hotel enjoyed such success as the new Detroit-Leland Hotel.

And today the Detroit-Leland enjoys a local, national and international reputation which places it among the world's foremost exclusive hotels.

700 Large Rooms with Bath
85% are priced from $3.00 to $5.00

DETROIT-LELAND HOTEL
Bagley at Cass
WM. J. CHITTENDEN, JR., *Managing Director*
***Direction*, BOWMAN MANAGEMENT**

YARD AND SHOP

(*Continued from page* 168)

DODGE APPOINTS FIRST AID HEAD

The appointment is announced by the Horace E. Dodge Boat and Plane Corporation of New York and Newport News, Va., of Miss Ann Kane as head of the plant hospital, the installation and equipment of which has been completed in the new Dodge plant at Newport News, Va. Miss Kane is a graduate nurse who received her early training in the St. Francis Hospital in Pittsburgh, Pa. She saw eighteen months of strenuous war service, first with the American Army at Camp Devens, Mass., later transferred to the British Army Nurse Corps in the London General Hospital, then serving for one year in the British Hospital at Boulogne and at Rouen, where she performed arduous front-line work in connection with the St. Quentin and Cambrai battles. After the armistice she was transferred to American Evacuation Hospital 36 at Nantes.

Since the war Miss Kane has served one year with the Instructive Visiting Nurses Group in Washington, D. C., and three years in child welfare work in that city. Since then she has been with the Eye, Ear, Nose and Throat Hospital in Pittsburgh.

At the Dodge plant Miss Kane has a corps of assistants adequate to handle any emergency and she will be in charge of the weekly safety inspection of the entire plant and the meetings of the State Monthly Safety Committee in connection with the plant. The new Dodge factory is equipped with every safety factor known to modern industry. Additional inspections and investigations will be made after each accident, however trivial.

EASTERN DEALERS MEET

Many Eastern dealers gathered in an all-day discussion and demonstration of all phases of motorboat construction and operation at the Delaware River Yacht Club of Philadelphia on the upper Delaware River at Torresdale on April 7. The gathering was sponsored by the Johnson motor and motorboat dealers, through Wilkening, Inc., 820 North Broad Street, their distributors.

August Wilkening, vice president of Wilkening, Inc., made the speech of welcome. Charles Herrmann, president of the Penn Yan Company, builders of Johnson motorboats, spoke on the new Sealite construction of their boats. John Marden, sales promotion manager for Wilkening, Inc., outlined sales and advertising policies and J. H. Heist, divisional sales manager of the Johnson Company, discussed other phases of this work.

W. H. Schaer, sales superviser, explained numerous technical improvements in Johnson motors this year, including the electric starter—one of the starters now standard equipment on outboard motors. Two interesting displays were the Johnson 22-foot family runabout with Seahorse 32 power, the 17½-foot service runabout, the utility runabout with Seahorse 12 power, and the exhibit of marine speedometers for outboard motors, presented by the National Lock Washer Company.

Dealers were on hand from Richmond, Va., and all corners of the Middle Atlantic section with a few from New England. They had luncheon and dinner at that club, and continued their discussions until late in the evening. The models were given plenty of action on the river, despite interspersed showers.

ARGENTINA TAKES UP CHRIS-CRAFTING

With the announcement by the Chris Smith & Sons Boat Company of the appointment of the Corporation Tiluca Milberg Hermanos as Chris-Craft distributors for Buenos Aires and vicinity, a most interesting chapter is added to the history of motorboating.

The Argentine, as many persons know, is commonly referred to as the United States of the South, for its people probably exhibit more of the so-called American characteristics than any other of the Latin races. The native Argentino is by nature and inclination a great sportsman—a lover of polo, motoring, and many other of the more strenuous athletic diversions. Given a good business year, the wealthy Argentino can be seen in any of the smart social centers of the Continent, setting standards of luxurious living that few can emulate, or even approach.

Argentina has recently developed a most modern navy, and with it has grown a national consciousness of the importance of the waterways in Argentine life. The new Chris-Craft distributors have expressed this national leaning in more concrete form by placing an order with the Chris Smith & Sons Boat Company for $187,000 worth of Chris-Craft motorboats—a remarkable order in any country. It is felt that increased sales of this kind in South America will do much to stabilize sales curves, since with seasons exactly opposite from ours, they will be heavy buyers of all sorts of sports equipment when our own markets are somewhat slowed up by winter weather. Export business is taking a position of tremendous importance in the boat building industry today.

(*Continued on page* 172)

Advertising index will be found on 3rd last page

ACO SEABOATS

Are safe . . . dry . . . fast . . . and comfortable

Safe, **because of their seaworthy lines, coupled with honest, rugged construction to take you through the roughest of seas. Solid mahogany planking bronze screw fastened to continuous steam-bent oak frames insures stiffness and guarantees a life-time of service.**

ACO Seaboats are DRY. **Special spray deflectors are placed at the turn of the bilge as an integral part of the framing, which serve the three-fold purpose of holding down loose water, serve as a full length rubbing strake or fender to protect the hull, besides adding materially to the longitudinal strength of the hull. What little spray passes the deflectors is thrown clear of the boat by a graceful flare, carried well aft.**

Fast, **because of a combination of scientific design and abundant power. They plane easily regardless of load and get *over* the water instead of through it. Their eager response to the throttle is a source of lasting pleasure.**

Comfort **is secured by careful fashioning of the bow and rounded bilges which permit easy entrance into head seas. Correct balance and proper distribution of weights keep them on an even keel and carry them through tide rips and choppy seas without a trace of pounding or discomfort to passengers. The location of the motor in the extreme stern leaves one big cockpit amidships with unusual seating capacity, where all passengers are grouped sociably together. Carrying the load amidships in this manner, the boat's trim and balance are unaffected regardless of whether the boat has a single passenger or is loaded to capacity.**

If you feel that these are vital essentials which you have a right to expect in a good runabout, write us today for detailed information.

Advertising index will be found on 3rd last page

small boats

JEFFERY'S C QUALITY
LIQUID MARINE GLUE

CLEAN seams thoroughly. Dip plumber's wicking into Jeffery's C Quality Glue. Remove excess glue by drawing wicking between thumb and forefinger. With caulking tool press wicking firmly into seam. Wipe off seam and let set. A particularly good treatment for lap strakes.

There is a Jeffery's Glue for any leak

At all dealers—Send for free booklet, "Marine Glue."

L. W. Ferdinand & Co.
152 Kneeland Streets Boston, Mass.

PETERSON
SPEED PROPELLERS

Increase the Speed of Your Boat by Using a Peterson Propeller

Made in two and three blades.

Write today for circular and prices

DEALERS:

PAULS BOAT SUPPLY, MIAMI, FLA. GRAY-ALDRICH CO., BOSTON, MASS.

O. P. PETERSON CO.
60-66 UNION STREET
PORTLAND, ME.

TANKS

For Storage of
GASOLINE, OIL or WATER
Made to Order

No matter what your tank problem, we are ready to meet your requirements for special shaped tanks in galvanized steel, Monel metal or copper. Our engineering department will be glad to assist you. Also a large supply of standardized tanks in many sizes carried in stock for prompt shipment.

RUDDERS, STACKS, SPECIAL WORK
GALVANIZING

L. O. KOVEN & BROTHER
Incorporated
154 Ogden Avenue Jersey City, N. J.

YARD AND SHOP

(*Continued from page* 170)

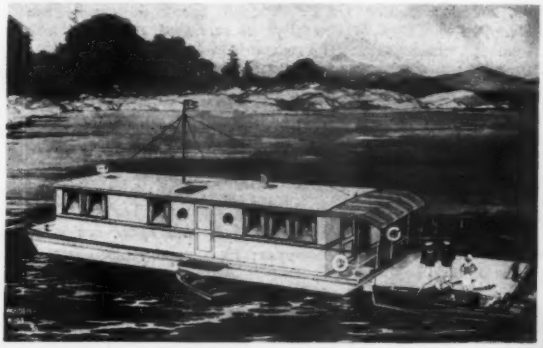
AN ABLE 40-FOOTER

The Long Island 40-foot cruiser introduced not long ago by the Long Island Shipyard, Inc., of Port Jefferson, N. Y., during the short period in which it has been on the market has met with unqualified approval and immediate acceptance wherever it has been seen, due no doubt to the fact that it is all boat from stem to stern and substantially constructed throughout. Aside from this it presents an unusually pleasing appearance and offers cruising accommodations which might not be reasonably expected in a 40-foot craft.

The accommodations include sleeping quarters for six in the owner's party and a crew of one. This space for six is provided in a double stateroom which is of ample size for two persons, the other four people finding comfortable quarters in the main cabin which follows it. A galley of generous size is provided and, astern, a generous cockpit 13½ feet long protected by a windshield forward, canopy overhead and bulwark and rail around the sides and stern. The matter of supplying abundant air, light and ventilation has been exceedingly well worked out so that the craft is most livable in all kinds of weather. Power is supplied by a dependable 6-cylinder Buda marine engine which develops 115 horsepower and drives the Long Island-40 at an honest 14-miles an hour.

NEW CORPORATION FORMED

A short time ago a consolidation was effected between American Cirrus Engines, Inc., and an associated company, Allied Motor Industries, Inc., for the purpose of manufacturing and selling marine engines and watercraft. The new concern is to be known as the American Boat Corporation. The company is composed of bankers, engineers, marine designers and builders, as well as men of long experience in the manufacture and sale of automobiles and aircraft.



An attractive view of one of the 45-foot American houseboats which are built in several useful styles

The new company will act as sales representatives and distributors for several well-known makes of boats, both motor and sail, and will conduct a brokerage business as well. In the metropolitan district they will be the representatives for Robinson Sea Gull, Corsair and Kyle 43 and 50-foot cruisers. Present plans call for the handling eventually of a full line of boats ranging in length from 20 to 50 feet, a series of speed boats and runabouts, both inboard and outboard and a series of houseboats for a great number of uses.

The officers of the company are: F. R. Maxwell, Jr., president; S. Clyde Kyle, vice-president and general manager; L. J. Kelly, vice-president; Nicholas Elliott, vice-president; and W. R. Blacklock, treasurer. Offices will be in the General Motors Building at 1775 Broadway, New York City, and the factory is located at Marysville, Michigan.

ANTIDOTE FOR THE BLUES

When your golf's below par and your cares are above,
There's never contentment so deep
As to dream at the wheel of a craft that you love—
While the waves sing your troubles to sleep.

Nor is there a thrill which so quickens your stride—
Gives you LIFE for the daily old fight—
As the mighty response of a throttle pulled wide
And the breath-taking blur of your flight.

GORDON B. HOOTON.

(*Continued on page* 174)

Advertising index will be found on 3rd last page

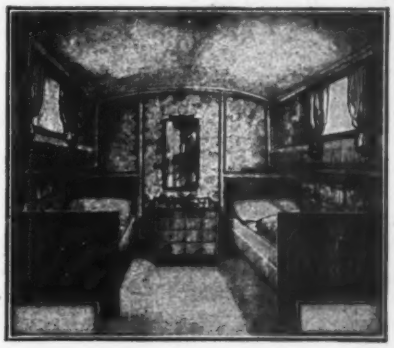
HOLL-CRAFT STEEL YACHTS

of Any Size and Power....

THESE YACHTS are examples of the finest workmanship of master shipbuilders.

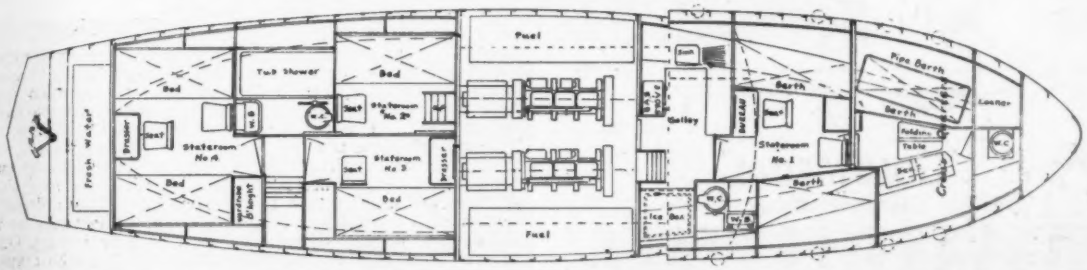
Nowhere in the world will you find boats comparable to these Diesel-powered steel craft. Built to the exacting specifications of Lloyds, after design of the Bremen, advanced naval architecture, speed and seaworthiness are assured.

Careful construction results in extremely low insurance rates ... low fuel cost ... absence of danger from gasoline ... freedom from hull destruction by worms.



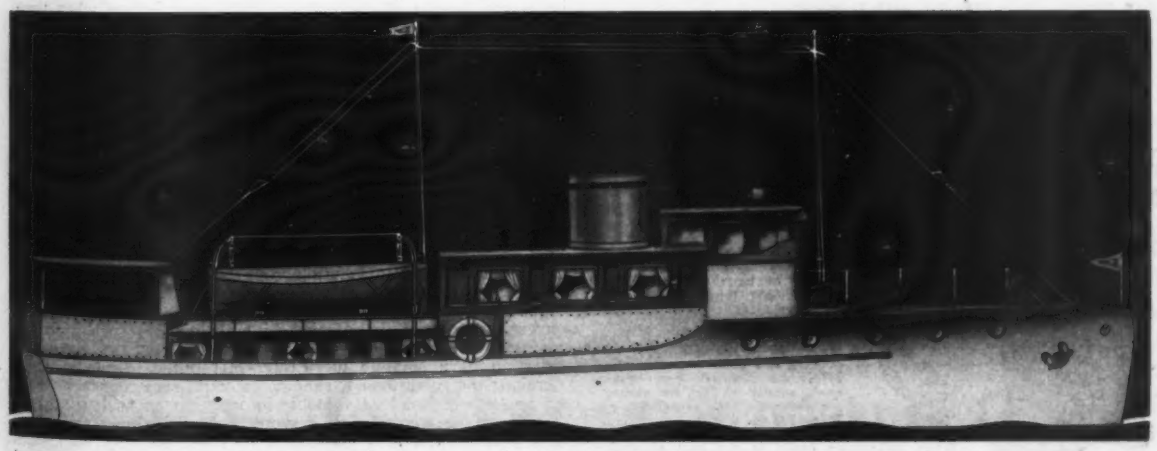
This State Room is furnished with full twin-size removable beds, not ordinary berths. Entire sleeping accommodations provide for ten people comfortably. Typical of the luxury throughout the craft.

Layout of Our 58 ft. Diesel-Powered Steel Cruising Yacht



Accommodates 10 passengers including crew. 4′ 6″ draft: 13′ beam. Displacement 26 tons. Two M. A. N. German Diesel Engines, 140 H.P. Speed 14 miles per hour. Fuel Tanks and Water Tanks in double-bottom compartments, placed in the hull, thus making engine room more spacious; allows also for placing there a 4 K.W. Bolinda Diesel Generator. All-electric Galley, 110 volt wiring. Price approximately $41,500. This price may be modified by eliminations or substitutions of some of the more expensive finish and furnishings.

In this model, as in all other HOLL-CRAFT Yachts, all exterior joiner work above the steel is teakwood, as is also the deck planking. Exterior hardware and all metal trimmings on interior, except on walnut doors, are chromium plated. No varnish, shellac or oil is used in the wood finishing process, yet a lasting and glasslike surface has been obtained which is unaffected by salt water and does not scratch easily. Deck and engine room ceiling insulated with two inches of cork and other heat-resisting materials.



For full particulars concerning HOLL-CRAFT Steel Yachts, address . . .

SHIPBUILDING & MOTOR EQUIPMENT, Ltd.

143 Tremont Street **BOSTON, MASSACHUSETTS**

Perfect Relaxation on Deck or Below

"Gold Medal" Yacht Chairs will be found on the decks of many well known cruisers. The appropriate designing and sturdy construction—the restful comfort obtained by "slumping" into these chairs is responsible for their wide popularity among boat owners. The frames of "Gold Medal" Chairs are of selected hardwood, stained mahogany and varnished. Canvas covers are closely woven—all hardware is of heavy gauge brass. Compact folding makes stowing easy. Write for illustrated folder.

Chair No. 35-Y

Set-in rubber feet prevent slipping and marring when on deck. This chair also furnished in red or green lacquer with colored covers for home and club use.

GOLD MEDAL FOLDING FURNITURE CO.
1754E Packard Avenue
Racine, Wis.

YOU'LL NEVER SAY "SHE NEEDS CAULKING"

EVERY craft can't stand an outboard motor. But this "Old Town" can! She's an outboard boat by build. The stern is made so it won't sag or "give" under the motor's weight. Ribs and keel are extra-rigid. The heavy, non-leak canvas covering never needs caulking. No seams to open up! "Old Towns" are built for long life with few repairs. Swift, light and easy to handle.

Free catalog shows all craft. Paddling, sailing and square-stern canoes. Outboard motor boats, including big, fast, seaworthy, all wood family boats; rowboats; dinghies; and speedy step-planes. Write today. Old Town Canoe Co., 186 Middle Street, Old Town, Maine.

"Old Town Boats"

JONES MECHANICAL FUEL PUMP

Easily attached to tachometer outlet of ANY ENGINE. No alterations or extra expense — testproved to be the most reliable and efficient type of fuel pump yet developed.

The Jones Mechanical Fuel Pump is of the diaphragm type—self-priming and positive in operation. Minimizes fire-risk and ensures exact supply of fuel for carburetor even in the roughest sea. Price $25.00.

When tachometer outlet is not part of engine equipment, special fittings can be furnished at slight additional cost to drive this pump.

JONES-MOTROLA SALES COMPANY
370 GERARD AVE. NEW YORK, N. Y.

YARD AND SHOP

(*Continued from page* 172)

A LUBRICATION CHART

Announcement has recently been made by officials of the Enterprise Oil Company, manufacturers of Duplex marine engine oil and Kasson waterproof grease, that the new 1930 edition of their Marine Engine Oil Chart is now ready for distribution to boat owners and dealers. The company has published this chart annually, for a number of years, and it has come to be looked upon as a most reliable guide to correct marine engine lubrication by thousands upon thousands of boat owners and dealers throughout the United States and Canada.

Commodore Howard Drakeley, Manager of the Marine Department of the Enterprise Oil Company, said, "This year's edition of our Marine Engine Oil Chart is more complete and goes deeper into the question of correct engine lubrication than ever before. Not only has careful attention been paid to new engines in the field, but engineering changes in older models have been thoroughly studied and allowed for. Marine engineers everywhere tell us that this is by all odds the most authentic work of its kind ever published and clearly indicates that it is issued by competent marine engineers who know their business."

The Enterprise Oil Company will gladly mail a copy of this chart, gratis, to anyone addressing them at 164 Chandler Street, Buffalo, N. Y.

BOATS SHIPPED BY TRUCK

It is indeed an unfortunate situation to have a modern five track siding, up-to-date shipping plant, and railroad locomotive, and then be unable to ship by rail. Such was the situation faced by the Algonac boat builder this past Winter. After a three-week notice the local electric railway which feeds this part of Michigan, and connects Chris Smith & Sons Boat Company with Detroit, ceased operations. No more trains were run over their tracks and it became necessary for Chris-Craft to look about for a means of shipping their boats. Here indeed, was a desperate situation with boats being turned out of these factories by the hundreds and no way of shipping them to their owners. Other obstacles from time to time have beset this large boat manufacturer but never one which threatened to cripple them as this did. Every means of getting the railroad through again was tried, but all to no avail.

There was only one way to ship the boats and that was via motor trucks. Accordingly, a fleet of fast motor trucks was obtained and loading platforms were built, and within four days boats were moving away from Algonac at the rate of from six to ten a day over muddy roads which threatened to be-mire the trucks every time they went out. They hauled the boats, ranging in length from 20 feet to 48. They had to build their own roads to reach the railroad spur six miles away. Every boat that left the factory had to be loaded on the trucks, carried this distance and then unloaded into a box car. Handling costs naturally went up and more time was consumed in handling boats than heretofore. However, by adding more trucks the situation was finally mastered until now even without a railroad, boats are leaving Algonac faster than ever before when there was a railroad. For the past three months of this year 137 boats were shipped to owners out of the Algonac plant and this represents a 33 percent increase over the similar period last year.

Now additional facilities are being built whereby the Spring rush just around the corner can be handled with the same ease and speed which has characterized these recent shipments.

THE OUTBOARD MANUAL

Persons who may desire to get a more complete understanding of the functions of their outboard motors as well as a good general knowledge of the care and operation of their complete outfits would do well to secure a copy of a little pamphlet known as the Outboard Manual published by C. C. Wakefield & Co., Ltd., the New York office of which is located at 117 Liberty Street. A partial list of the contents includes such important points as the choice of runabout and racing engines and boats; selection of a suitable lubricating oil; outboard motor classification; the conditioning, running in, care, servicing and storage of an outboard motor; valuable information on such mechanical details as the transmission system, cooling, ignition, carburetion and propellers; and a great deal of other pointers with which every boat operator should be familiar in order to care for and operate his boat successfully and intelligently. The Wakefield Company are manufacturers of the high grade lubricant known as Castrol.

(*Continued on page* 176)

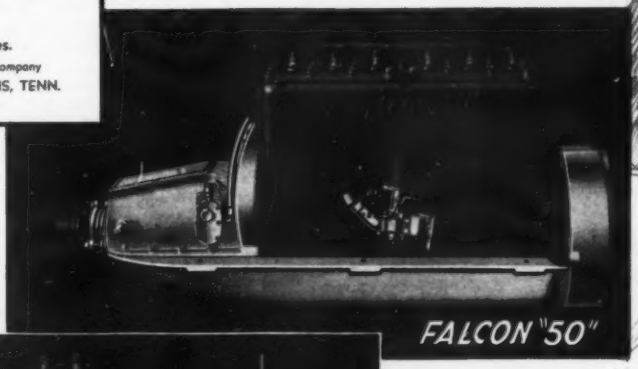
Advertising index will be found on 3rd last page

I have given the FALCON "50" a thorough trial in my 25-foot Hacker type boat and it does exactly as you stated from 20-25 miles per hour.

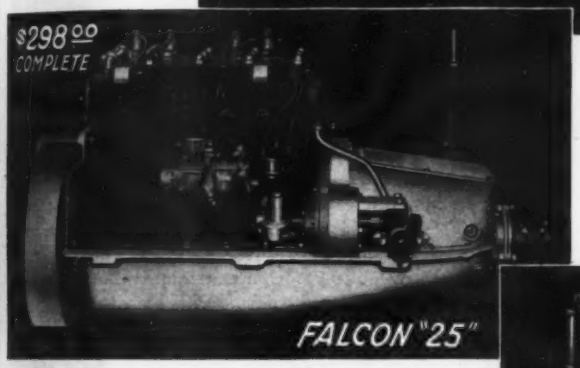
The marine motor man who installed this engine says that it will stack up favorably with any 100 H. P. in this port.

W. B. WARD, Pres.
Memphis Glass Company
MEMPHIS, TENN.

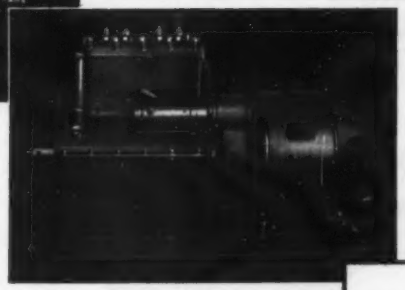
SPEAKING OF SATISFIED USERS!



FALCON "50"



FALCON "25"



"FALCON" SERIES

50 H.P. "Six"
40 H.P. "Four"
25 H.P. "Four"
15 H.P. "Four"
10 H.P. "Twin"
5 H.P ."Single"

WHENEVER a "FALCON" is installed in a boat, someone is always due for a pleasant surprise.

Because — within the steel muscles of every FALCON engine is a surplus store of *reserve power* which delivers *more* miles per hour . . . *more* downright stamina . . . *more* gliding smoothness . . . than your most optimistic hopes expect.

Which explains why FALCON owners are all so enthusiastically satisfied with the performance of their motors.

Yet, FALCON engines are surprisingly low in cost. For example, the mighty little "25" sells for only $298 complete, with reverse gear. Without reverse gear, even less!

Other prices are equally attractive. Write for full information on the model in which you are interested.

U. S. Super-Smooth Electric Plants

U. S. super-smooth electric plants run quietly, start without a murmur and deliver smooth, flickerless current. Complete line of 11 models for smallest cruisers up to large yachts ranges from 350 watts to 15 K.W. in 12, 32 and 110 volts.

Also special line designed for land use. Write for literature and prices.

We are very much pleased with the smooth, quiet operation of both your four-cylinder Super-Smooth Electric Plants. They are practically free from any vibration at all and would hardly know they were running from any position you might be sitting in the deckhouse or pilothouse.

H. C. BURGER, Pres.
Burger Boat Company
MANITOWOC, WIS.

United States Motors Corp.

Established 1890

Central and Eastern Canada Sales Office:
Maddox Engineering Co.
75 Adelaide Street, W.
Toronto, Ont., Canada

Factory and Main Office
102 NEBRASKA STREET
OSHKOSH, WISCONSIN

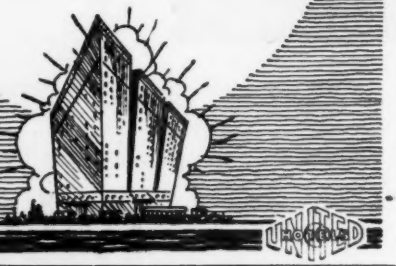
Pacific Coast Sales office:
Machinery Exporters, Ltd.
Merchants Exchange Bldg.
San Francisco, Calif.

THE
BENJAMIN
FRANKLIN
PHILADELPHIA
Chestnut at Ninth Street

Unquestionably the ideal hotel in Philadelphia. Attentive service, enjoyable environment, traditional hospitality and above all, maximum comfort.

Twelve hundred rooms, each with bath
Rates commence at $4.00

HORACE LELAND WIGGINS, Managing Director



AQUA-PRESSOR

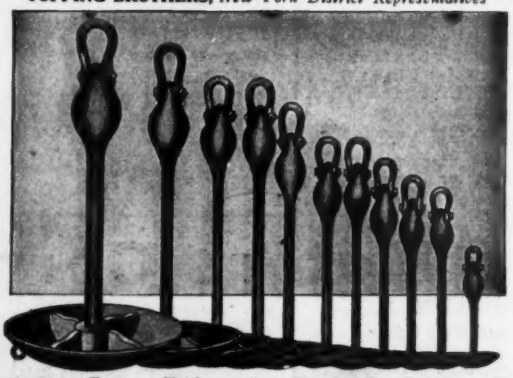
A combined air compressor and pump unit of rugged construction and many uses.

Furnished with either 32 or 110 volt motor. Can also be had with compressor only. Manufactured by the makers of Hi-Duty Direct connected pumps.

Write today for literature and prices.
Used by Leading Yacht Builders

BOWLER, HOLMES & HECKER CO.
259 GREENWICH ST. NEW YORK, N. Y.

FAIRHAVEN BULB-SHANK MOORING ANCHORS
TOPPING BROTHERS, *New York District Representatives*



Booklet Gives Facts — Fairhaven Iron Foundry Co., Fairhaven, Mass.

YARD AND SHOP

(*Continued from page* 174)

SOUTH JERSEY SPEEDBOAT ASSOCIATION

Professionals and amateurs will all be taken care of by the newly formed South Jersey Speedboat Association, which came into existence during the past month in Philadelphia as an organization of 16 South Jersey yacht clubs from Atlantic City to Cape May.

Morton R. Alexander, for many years an important figure in racing on the South Jersey coast, and years ago chairman of the regatta committees of the old Corinthian Yacht Club of Cape May, and of the Cape May Yacht Club, was elected as the first commodore.

Old time yachtsmen will remember him as driver of the displacement racer Bob-O-Link II, which in 1913 created a series of splendid records.

Other officers elected unanimously were vice commodore, Martin W. Fritsch, of Mays Landing Speedboat Association; rear commodore, Mayor Robert G. Pierpont, of Wildwood; secretary, George O. Calvert, of Mullica River Y. C.; treasurer, John C. Cook, of Mays Landing Speedboat Association; and chairman of the Board of Directors, Edison Hedges, of Atlantic City. The board will consist of one representative from each member club.

Racing officials were also elected as follows:—Marshall Lentz, Tuckerton Y. C., referee; Louis H. Bozarth, Mullica River Y. C., starter; Charles F. Trout, Ocean City Y. C., assistant starter; Dr. Charles Sharp, Port Norris B. C., and Harry Graves, Cape May Y. C., timers; Dr. Haynes, Yacht Club of Stone Harbor, and F. E. Langenheim, Avalon Y. C., judges.

The length of the annual marathon scheduled for Lake Lenape, at Mays Landing, September 6, will be 100 miles instead of 50 miles, it was announced. A special trophy has been presented for this race by William R. Eisenhower, of Philadelphia, which will become the permanent property of any driver winning the cup three times.

All starts of the association will be on the clock system, and none on the pilot boat system, as was used last year. An innovation was the decision to number all drivers this year, in addition to all boats, so that spectators could tell from the program just what that the boats are in a race, and who is driving them.

The Association approved the schedule recently unofficially drawn up and announced, for a long schedule of 17 races, from Memorial Day to September 6. The association authorized incorporation, and will apply for membership in the American Power Boat Association.

JOHNSON EXPECTS BUSY YEAR

Optimistic prophecies of increased business in 1930 have been borne out by reports to the Johnson Motor News, dealer organ of the Johnson Motor Company, Waukegan, Ill.

The News reports that the Marine Sales and Service Corporation, distributors of Johnson motors and boats at Wilmington, Cal., showed a 218 per cent increase in sales for the first four and a half months of 1930 over the same period of time last year.

The 218 per cent increase is an average over the period starting Oct. 1, 1929. In December this distributor's sales showed a gain of 490 per cent over December of 1928.

Paul Hawk of the western distributor says: "Of course, these months constitute only a small part of our business for the year, but still the tremendous increase over last year is an indication to us that we may expect a wonderful business in 1930."

RHODE ISLAND ASSOCIATION PLANS ACTIVE SEASON

According to present plans the Rhode Island Motor Boat Association is to have a particularly interesting and active racing season this year, with a tentative schedule of ten races already on the program.

A new feature is to be adopted which is expected to lend considerable color and added interest to the outboard competitions. The results of last season's racing showed that all the class A boats ran consistently in range of the records, well bunched, and at three regattas established new official records. On the other hand the boats of the other classes ran less consistently and in many of the races finished up fairly well strung out, which detracted somewhat from the interest they should have drawn. The class A races were always snappy and thrilling and 18 of these 100-pound boats have already been entered for the coming season. Each is to be painted in a different color which will undoubtedly contribute toward making the class A races spectacular events.

Besides the prizes offered for the respective races and the season point prizes, special silver medals have been provided for each of the owners who crosses the starting line in ten scheduled races. This year each of the competitive craft is to have the club's insignia painted on its deck in colors.

(*Continued on page* 178)

Now the great winds shoreward blow
Now the salt tides seaward flow

Now the white wild horses play
Champ and chafe and toss in the spray.
M. Arnold.

Like Phantom Winged Steeds

Cruising onward to distant ports, the Cooper-Bessemer Diesel powered yacht glides gracefully through the water as though drawn silently along by phantom winged steeds. ✣ So smooth, so quiet and so free from vibration are these modern yacht engines that scarcely a tremor is evident in either hull or rigging to suggest the presence of steadily running mechanism. ✣ Yachtsmen who go down to the sea for pleasure select Cooper-Bessemer Diesels for this day-after-day smoothness and unfaltering serviceability that has made them outstanding among yacht power plants.

THE COOPER-BESSEMER CORPORATION
General Diesel Sales Offices: 25 West 43rd Street, Suite 301, New York City
Plants: Grove City, Pa., Mt. Vernon, Ohio
Special Yacht Representative: EARL H. CROFT, 25 W. 43rd Street, New York City

COOPER-BESSEMER
DIESEL MARINE ENGINES
POWERING AMERICA'S FINEST YACHTS.

THE BEST
is none too good
for YOUR BOAT

SILVER SUDS
TRADE MARK
Marine Cleanser

CLEANS INSIDE AND OUT. IT IS THE
PERFECT PAINT CLEANER

Restores original finish without harming surface.
Unsurpassed in Engine Room. Removes grease instantly.

Whitens Canvas, Cleans Sails and Removes Mildew
1 qt., 75c.; 1 gal., $2.00; 5 gal., $7.50
Packed in cans. F.O.B., Phila., Pa.
Send for free sample

SILVER SUDS MFG. CO.
829 North 19th Street, Philadelphia, Pa.
Established 1896. Dealers and Distributors wanted.

SILVER SUDS
MARINE CLEANSER

ALGONAC BOAT HOISTS

IF you have a nice boat, why not keep it nice with one of these Hoists? You will be more than pleased with this easily operated and substantial hoist.

$140.00 to $300.00
Fully Guaranteed
Monnier Bros., Inc., Algonac, Mich.

LOBEE CIRCULATING & BILGE PUMP

You can't get a better or more reliable pump than the Lobee because there isn't a better one made. It has been the World's Standard of Pump Quality for 25 years. No other pump has proven so popular in the marine trade. Simple, compact, noiseless and positive. These pumps will outwear the engines to which they are attached.

Gear and Rotary Pumps from ¼" to 1¼" suction and discharge. Different designs for various types of drive and mounting made to order.
Write today for catalog and prices.
Sold by Leading Dealers Everywhere.

Lobee Pump & Machinery Co.
1790 Niagara Street, Buffalo, N. Y., U. S. A.

YARD AND SHOP

(*Continued from page* 176)

FAST REPAIR SERVICE

An automobile, three boats, and an airplane featured a mishap and rescue by air that occurred at Falmouth, Va., just south of Fredericksburg on March 18.

Three outboard racing boats, manufactured by Ludington Aircraft, Inc., Boat Division, Philadelphia, were being rushed by auto and trailer to compete in the Miami Beach outboard regatta on March 25 and 26 and other Florida races. Jake Dunnell, designer and production manager of Ludington Aircraft, Inc., Bill Tuck, and Ross Maddox, all champion outboard drivers, were expecting these craft to sweep them to victory.

On March 18, a telegram from the driver of the automobile and trailer announced that the trailer had broken away, turned over—and one of the boats had smashed while the other two were badly broken.

No materials for repair were at hand so F. H. Hutchinson, general sales manager of Ludington Aircraft, Inc. and J. C. Newlin, Jr. of the Ludington Philadelphia Flying Service took out the seats of a 6 place Travelair Monoplane, loaded it up with mahogany plywood and tools and took off for Falmouth, Virginia, 180 miles south.

Two and a half hours of fast flying put them at the scene of the accident with the necessary repair materials. Repairs were quickly made, and the Ludington boats started on their way to Florida. Hutchinson and Newlin made the return trip in the Travelair on the following day.

FLORIDA'S INLAND WATERWAY CRUISE

During the latter part of April an inland waterway cruise was made through Florida's canals, lakes and streams under the auspices of the Waterways Committee of the Florida State Chamber of Commerce, the chairman of which is H. M. Corse. Cruise officers were Stockton Broome, commodore; Judge J. L. Doggott; D. M. Barnett; Kenneth Merrill; and Francis P. L'Engle. The purpose of the cruise was to endeavor to make a survey of the waterways to be traversed, and to create additional interest in inland waterway cruising by small boats. A future issue of MoToR BoatinG will contain a more detailed account of the experiences of the participants in the cruise.

ILLINOIS FORMS STATE ASSOCIATION

One of the first harbingers of spring is at hand—boating enthusiasts of Illinois have practically completed plans for the most intensive racing season ever scheduled for outboard boats in the State.

Representatives of more than twenty Illinois boat clubs met at the Bismarck Hotel, Chicago, March 23, to complete the organization of a state boating association and the formation of two race circuits. Temporary officers of the new association were elected and a number of racing dates were set.

The Illinois Boating Association will be the newest link in the chain of outboard divisions of the National Outboard Association and will have immediate supervision over all sanctioned outboard events to be held in the state this summer. The state has been divided into two race circuits in order to handle with greater ease the large number of regattas which have been slated. The two circuits will comprise clubs in the central and northern part of the state and later it is planned to form a southern circuit.

Clubs in the central race circuit include those at Danville, Decatur, Jacksonville, Havana, Indianapolis, Bedford and Terre Haute. The northern circuit was represented by clubs from North Shore, Jackson Park, Sterling, Dixon, Rockford, Fox Lake, Waukegan, Peru, La Salle and Roseland. W. E. MacGavin of Waukegan was elected to serve as temporary commodore until the first convention. Paul Lewis of Decatur was elected to serve temporarily as vice-commodore for the central circuit and W. O. Hyde of Jackson Park, Chicago, was chosen temporary vice-commodore of the northern circuit.

Representatives from the various clubs voted to stage an all-state meet on August 17 at a place to be decided upon later. Also, it was decided to hold circuit meets on August 3. Other dates decided upon tentatively were: June 8—Decatur; June 22—Indianapolis; July 13—Danville; July 27—Terre Haute; August 24—Bedford; August 10—Danville; September 1—Decatur; May 30—Rockford; June 29—Rockford; July 20—North Shore at Wauconda; August 3—Chicago and Decatur. On June 22 the Waukegan to Chicago outboard marathon will be staged and this long grind will be followed immediately upon the arrival of the boats at Chicago by a huge regatta on the lake front. Some of the water meets will serve as elimination contests for the National Championships of the N. O. A. to be held somewhere in the east this year.

(*Continued on page* 180)

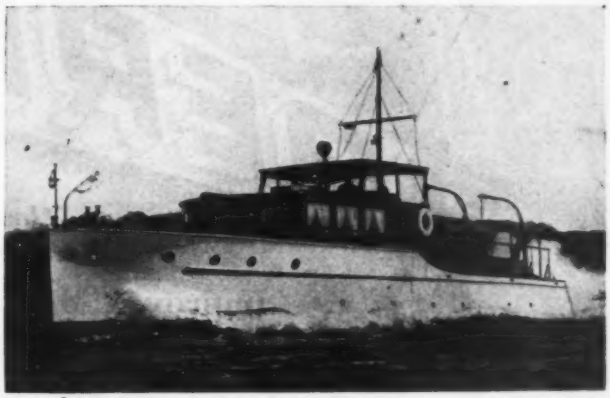
Advertising index will be found on 3rd last page

FLEETWING

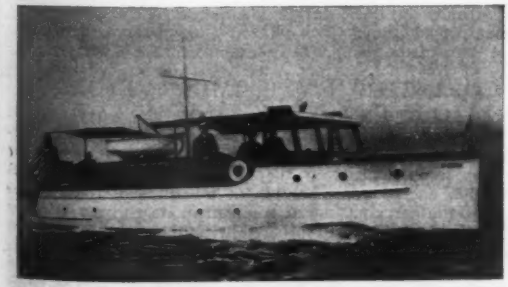
Five 1930 Models

for IMMEDIATE DELIVERY

THE Fleetwing fifty-five foot twin-screw motor yacht typifies the latest in cruising comforts. Three staterooms individually decorated. Three toilets and bath. Hot and cold water. Separate crew's quarters. Fleetwing - Peerless, Buda or optional engines.



Fast and superb for all-weather commuting and off-shore cruising, the streamlined Fleetwing Fifty is the safest craft you can buy. Three separate fire prevention systems and five water-tight compartments are among the many safety features. Forced ventilation changes the air every 3½ minutes. Accommodations of the most advanced type for eight, and crew of two. Two 175 H. P. Fleetwing-Peerless engines give a cruising speed of 20 miles per hour.



The popular Fleetwing Forty bridge deck double cabin cruiser sleeping seven is the outstanding craft of its size in quality, design, performance and value. Powered with 115 H. P. six-cylinder Buda. Price $10,875.

OTHER FLEETWING MODELS

Thirty-two Foot Cabin Runabout
Twenty-eight Foot Fleetwing Junior
Eleven Foot Mahogany Tenders

FLEETWING YACHT & SHIPBUILDING CORP.

153rd STREET and HUDSON RIVER Telephone: Billings 7445 NEW YORK CITY

OPEN SATURDAY AFTERNOON AND SUNDAY

You are cordially invited to visit our showroom—via Broadway Subway to 157th Street, then across foot bridge at 155th Street; via auto W. 158th Street under viaduct, then to 153rd Street along the bulkhead.

PERKO
Insist
upon having these
Improved Marine Lights
Many patented and exclusive improvements and highest grade construction make PERKO Products the most satisfactory. Look for the name "Perko" stamped on every item. It is your guaranty of superior quality.
PERKO Products include running lights and lighting fixtures for every marine requirement and many improved hardware specialties. Their superiority is proven by the fact that they are standard equipment on most of the finest stock cruisers, outboards and runabouts.
Learn all about the latest ideas in marine lights by writing for our free 68-page catalog.
Perkins Marine Lamp Corp.
1946 Pitkin Avenue, Brooklyn, N. Y.

YARD AND SHOP

(*Continued from page* 178)

MUSKEGON LAKE YACHT CLUB LAUNCHED

We take this opportunity of introducing and welcoming the new Muskegon Lake Yacht Club which has just been organized at Muskegon Lake, Michigan, with L. O. "Larry" Gordon, president of the Muskegon Motor Specialties Company, at the helm as first Commodore. At the organization meeting C. D. R. Mulder presided and Harry H. Smedley presented the constitution and by-laws which follow those adopted by the Columbia Yacht Club of New York. Thirty men were present at the meeting. The candidates selected by the new committee were: Commodore L. O. Gordon, Vice-commodore C. E. Johnson, Rear-commodore Dr. A. A. Spoor, Treasurer Louis G. Close, Secretary H. E. Hastings, Jr. and governors George C. Kimball, George Hume and E. G. Carter. Mr. Hastings later resigned because of other duties and L. H. Powrie was named to take his place.

CHRIS-CRAFT ESTABLISHES BALTIMORE BRANCH

A branch has been established at Dundalk, Baltimore, Maryland for the sale and service of Chris-Craft all-mahogany motorboats, built at Algonac, Michigan, by the Chris Smith & Sons Boat Company, builders of all-mahogany motorboats.

The new Baltimore branch is an office of the Marine Equipment & Supply Company of Philadelphia. For the past three years the Marine Equipment & Supply Company have been the distributors of Chris-Craft all-mahogany motorboats in three states, Pennsylvania, New Jersey and Delaware. This year their territory has been increased so that it now embraces in addition, the entire State of Maryland.

With the twenty-one years experience that the Marine Equipment & Supply Company have had in service to boat owners they are exceptionally well qualified to serve the boating needs of Chris-Craft owners in the four states they cover, which is indeed a most important territory. Raymond W. Thompson of Severna Park, well known in Baltimore boating circles, is in direct charge of the Baltimore branch.

The beautiful Chesapeake Bay, with its thousands of tributaries, is an ideal boating ground and has attracted prominent citizens from hundreds of miles around who have established homes and yacht clubs so that they could enjoy these natural boating facilities. The tremendously increased interest in boating in recent years has of course resulted in the development of the Chesapeake to an extent otherwise impossible.

The new Baltimore branch of the Marine Equipment & Supply Company is equipped to properly service Chris-Craft motorboats with facilities for mooring, repairing, storage, in fact any service that a Chris-Craft owner may require, including an adequate stock of spare parts.

Up to this time from the numerous applications for the Chris-Craft dealer franchise in Maryland, Frank Ferris, of St. Michaels and A. T. Conord of Northeast, have been appointed Chris-Craft dealers by the Marine Equipment & Supply Company, representing additional Chris-Craft sales and service facilities for at least two of the many strategic points on the Chesapeake Bay.

CORINTHIAN Y. C. IMPROVEMENTS

About $18,000 has been subscribed for the carrying out of the Peters plan of harbor improvement projected by the Corinthian Yacht Club, Washington, D. C., which provides for numerous improvements in the housing and berthing facilities at the club anchorage. The sum at present subscribed will not permit of the carrying out of the plan in its entirety as yet but the board of trustees will proceed with the work to the extent of providing berthing space for the entire club fleet and for some future growth as soon as possible. It is not intended to abandon the Peters plan but rather to carry it out completely as rapidly as funds become available. Vice-commodore Galliher has been directed by the board to go ahead and contract for the first installment of dredging and wharf construction which when completed will take care of about 130 boats. Everything possible is being done to expedite the work and whatever delay may occur will be due to the inability to secure dredging equipment as a result of the great amount of dredging being done about the river and bay at this time. Dikes are now being built and are rapidly nearing completion.

(*Continued on page* 182)

Advertising index will be found on 3rd last page

Smooth sailing INSURANCE

There's more to smooth sailing than appears upon the surface. Even though the sea is calm and your crew able there is trouble ahead if you set sail in a sieve. Many a sturdy craft has passed on to the leaky-tub stage in a few short years.

Kuhls Elastic Seam Composition is your smooth-sailing insurance. Records prove that this famous caulking material makes seams STAY watertight for years. Permanent elasticity does it! It's easy to apply and needs no further attention. Ask any good boat builder about Kuhls or better yet ask your nearest dealer.

H. B. FRED. KUHLS

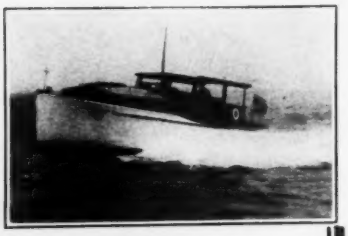
e-l-a-s-t-i-c seam compositions and paints

65th street & 3rd avenue brooklyn, n. y.

Sole Manufacturers since 1889

No 1 FOR DECKS
No 2 FOR HULLS
No 3 FOR LAYING CANVAS

For quiet, efficient motor performance however long the cruise—



GROCO

OIL COOLERS

Modern, high speed marine engines run hot—thin your oil—draw it up past your piston rings and burn it with every turn of the crank shaft.

Groco Oil Coolers automatically keep your oil at an efficient, smooth running temperature—preserve its body and lubricating properties—keep it out of your explosion chambers.

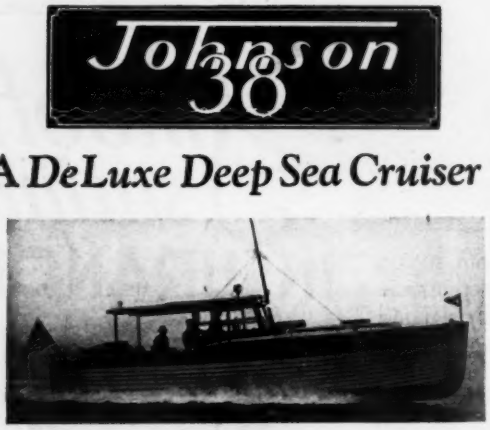
Equip your motor with a Groco Oil Cooler—just give us the name and horse power.

GROSS MECHANICAL LABORATORIES
BALTIMORE, MD.

Groco Oil Coolers are specified as standard equipment on most of the finest boats and engines.

Johnson 38

A DeLuxe Deep Sea Cruiser



IN the Johnson "38" Sea Skiff cruiser you have the finest combination of speed, safety and comfort offered by any craft of its size. Luxurious accommodations for four to six people, single or double cabin, and speeds up to 32 miles per hour. Equipment and furnishings include all essential boat gear as well as china, silver, linen, blankets and radio, etc.

JOHNSON "33" CRUISER

A smaller edition of the famous 38-footer is now available in the new Johnson "33" sea skiff cruiser. Single or double cabin with 150 H.P. engine and speeds of 23 miles per hour.

Write today for further information.

HUBERT S. JOHNSON BOAT & ENGINE WORKS
Bay Head, New Jersey

YARD AND SHOP

(*Continued from page* 180)

TWO-DAY REGATTA AT WORCESTER

On May 29 and 30 outboard drivers will come together again from all the neighboring states for the big annual Decoration Day Regatta at Worcester. Time trials will be held all day Thursday, and Friday will be devoted to the races. The regatta is sanctioned by the New England Outboard Motor Association and the American Power Boat Association, with A. P. B. A. racing rules to govern. Drivers and owners must be members of some club or association affiliated with the outboard division of the American Power Association. Races will be held for all divisions in classes A, B, and C as well as another open class, and also for divisions 2 and 3 in class D. Purses and prizes amounting to $1,500 will be posted for the various events. In each division 3 race the purse will be $100 to be distributed as follows: first, $50, second $25, third $15 and fourth $10. In division 3, open to all, $100 is to be posted, winner taking all. Prizes have been provided for all division 1 and 2 drivers and another special prize for the individual driver totaling the greatest number of points.

The judges' barge will be the same as used last year and will be stationed on the Worcester side of the course. A runway from the shore will eliminate the necessity of providing committee boats. Near the starter's barge several floats will be located where drivers will be permitted to leave their boats tied all day long if they care to. Gas, oil and other supplies will be available there which will save running back and forth to the boat house.

Telephones will be installed to connect boathouse, starting line and judges' float, and loud speakers will be stationed in such position that the crowd congregated on Regatta Point will always know exactly what is going on, with an announcer on the judges' float broadcasting events as they take place. Between times that the races are being held, music will be broadcast over this system.

Special consideration is being given this year to the convenience and comfort of the press. They will have a special barge of their own drawn up alongside of the judges' barge, reached by a runway from the shore. Telephones will be installed for their convenience and the barges will be covered for protection from the sun and rain.

An entertainment is scheduled for Wednesday evening, May 28, at which time there will be a buffet supper at committee headquarters in connection with the drivers' meeting.

Thursday evening, May 29, there will be a clambake at the Tatassit Island Lodge, and on Friday evening prizes will be awarded at the lodge and a banquet and dance will be held. For information and entry blanks address T. Frank Hickey, chairman, 721 Main Street, Shrewsbury, Mass. For hotel accommodations, apply to George Sessions, assistant chairman, 71 Pleasant Street, Worcester, Mass., telephone Park 2280. The Regatta Committee's headquarters will be located at Winchester's Boathouse, Lake Avenue, Worcester, Mass., telephone Park 6936.

FOLD-LIGHT FEATURES COMPACT PORTABILITY

The new Outboard Motors Corporation Fold-Light, a light and compact twin cylinder motor, is a decided favorite with the fair sex, because of its light weight and easy portability. Notwithstanding the compactness and extreme light weight of this motor, it has ample speed and power for even the good-sized boat and is rapidly becoming a favorite everywhere.

Nearly everyone who has seen this new motor has marveled at the ingenious engineering which has produced a motor which weighs no more than a hearty picnic lunch, yet records a full 2¾-horsepower rating. Its diminutive size, enabling it to be stowed away nearly anywhere, gives no suggestion of the speed and power which it possesses, in comparison with its small size.

When it comes to handiness, this motor gives a new conception to outboard motor boating. It can be carried in the automobile for a Sunday afternoon's boating on the family's favorite lake and nearly any member of the family can carry it easily, with no effort. In addition, the motor possesses several radically new features. The mounting of the gas tank on the inboard side of the motor permits the lower unit to be folded up to the extreme tip of the flywheel, which makes for more compactness than has hitherto been known. Not only this, the placing of the gasoline tank on the inboard side of the motor serves as a protection for the youngsters against touching the moving flywheel, or the spark plugs, and is more easily accessible for refilling. The motor starts easily, too, its relatively small piston displacement permitting the motor to be pulled over compression with very little effort.

(*Continued on page* 184)

Advertising index will be found on 3rd last page

The Great Sport of Sailing Dinghies Comes Into Its Own!

We knew that sooner or later the sport of sailing dinghies would be known for the great sport it is . . . fast, exciting, more fun than sailing larger boats. That's why for years we have devoted untiring attention to our sailing dinghy designs.

That's why today more Penn Yans are in service than any other make!

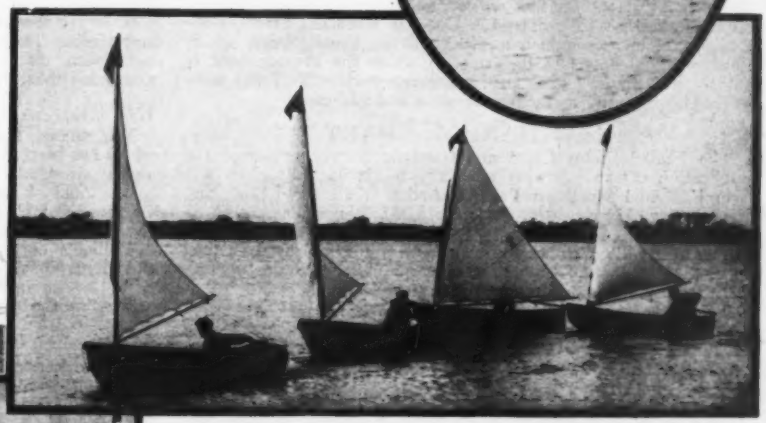
To get all of Penn Yan's advantages be sure "Penn Yan" is on the boat you buy. Faster and more nimble because the composition construction is half the weight of wooden boats in service. Unaffected by water, weather, or storage—therefore lasts longer. Always dry—never leaks and requires no caulking. Easily beached because of light weight—easily stored because mast unsteps and stows away in hull.

Penn Yan Sailing Dinghies make excellent yacht tenders for they are equally efficient for rowing and outboard motor power.

Made in several snappy pastel shades. The ten footer—$185 complete. The twelve footer—$204 complete. Interesting illustrated folder sent upon request.

Malcolm Pope, famous outboard racer and stunt driver, discovers a new source of thrills in a Penn Yan Sailing Dingby

PENN YAN BOAT CO., Inc.
155 Water St., Penn Yan, N. Y.



PENN YAN
SAILING DINGHIES

Outstanding Choice
of Architects and Boat
Builders for *SWIFT, SURE, FIRE PROTECTION*

Robinson Seagull C-O-Two Protected.

THE notable increase in the specifications of the C-O-Two System by so many of the foremost architects, designers, and boat builders is a striking indication of the superiority of C-O-Two and the growing prestige it had gained in the eyes of these experienced experts. The wisdom of their choice is emphasized by the unsolicited testimonials verifying C-O-Two's unerring service in the protection of lives and property from fire on land and sea.

C-O-Two engineers give you the benefit of a vast experience in protecting millions of dollars worth of industrial and marine property with the identical C-O-Two system now available for all boats. "The C-O-Two Automatic System" (with separate remote manual control) is the original and first automatic fire extinguishing system, employing the use of harmless C-O-Two Gas. A most important feature of C-O-Two is its simplicity, fool-proof and unfailing dependability of control. The cost of absolute fire protection with the C-O-Two System is so reasonable as to make the consideration of any other, an expensive experiment.

C-O-Two is adaptable to any craft—from the smaller runabout to the largest yacht. A booklet and price list will be sent on request. Address the factory or nearest representative.

C-O-TWO FIRE EQUIPMENT CO.

3700 Mines Ave., Los Angeles, Calif.

[REPRESENTATIVES]

NEW YORK, N. Y.
E. J. WILLIS Co.
85 Chambers St.

SEATTLE, WASHINGTON
PACIFIC MARINE SUPPLY CO.
1323 Western Ave.

BOSTON, MASS.
WALTER H. MORETON CORP.
1043-5 Commonwealth Ave.

SAN FRANCISCO, CALIF.
ETS-HOKIN and GALVAN
181 Stewart St.

CHICAGO, ILL.
MILTON G. HERBERT
Motor Boat Mart, Navy Pier

WILMINGTON, CALIF.
ETS-HOKIN and GALVAN
218 Avalon Blvd.

DETROIT, MICH.
C. T. CHENEVERT
1020 Buhl Bldg.

SAN DIEGO, CALIF.
CLEM STOSH
2nd & C. Sts.

NEW ORLEANS, LA.
ARTHUR DUVIC'S SONS
122 Charter's St.

VANCOUVER, B. C.
BOEING AIRCRAFT, Ltd
1627 Georgia St. West

YARD AND SHOP

(*Continued from page* 182)

WEAK SPOTS

Unremitting warfare has been carried on by man from time immemorial against his greatest enemy on water-leaks. The primitive man used baked clay; his grandchildren discovered that some sticky fluids from trees were better; then came pitch, putty, beeswax, white-lead. At last science stepped in and gave us marine glue, a non-hardening water-proof product. Today there is no need to be endangered or even bothered by a leaky boat. There is a marine glue that will cure the most stubborn and persistent leak. L. W. Ferdinand & Co., 152 Kneeland Street, Boston, Mass., have compiled a little booklet, Weak Spots, which illustrates and describes the leaks to which the average boat is subject, and the best method of a permanent cure. You may have a free copy by sending them your name and address.

NEW HARBOR CHART

The United States Coast and Geodetic Survey announce the publication of the following new edition of chart No. 285. Kill Van Kull and Northern Part of Arthur Kill, New York and New Jersey. March, 1930. Scale, 1:15,000. Dimensions, 32 by 37 inches.

The new edition shows the condition of the improved channel in Arthur Kill from Cateret to Shooters Island as of June 30, 1929 from surveys and reports of the U. S. Engineers.

This new chart may be procured or inspected at New York Field Station, U. S. Coast and Geodetic Survey, Room 328, No. 6 State St., New York City.

BOSTON TREIBER DISTRIBUTOR

The Treiber Deisel Engine Corporation of Camden, New Jersey, manufacturers of Treiber deisel marine engines and electric generating sets, announces the appointment of the Noyes Marine Company, 305 Congress Street, Boston, Massachusetts, as its New England distributor.

The Noyes Marine Company is one of Boston's largest marine concerns, with a branch and dealer organization which blankets the entire coast line and inland waters of the six New England states. They will handle the complete Treiber line—generating sets 7½ to 70 K.W. and marine engines 65 to 3,000 h.p., and are in a position to give to Treiber owners and prospective buyers unparalleled service facilities.

NEW COURSE MEASURER

Commodore Harry Greening, noted speed boat pilot, has invented a machine for measuring courses laid out for boat racing. Because of the remarkable speeds which have been attained by outboard boats, Greening came to the conclusion that more accuracy should be attained in measuring the distances covered by the tiny boats in speed trials. His machine is nothing more than a wheel with a gauge attached to it. Around the wheel is wrapped ten miles of fine wire. One end of the wire is attached to a buoy and the wheel is kept in the measurer's boat. The wire is then strung around the course. Greening claims that he can come within one-half of one foot of measuring the correct distance of a course with his contrivance.

INTERNATIONAL REGATTA AT THE LIDO

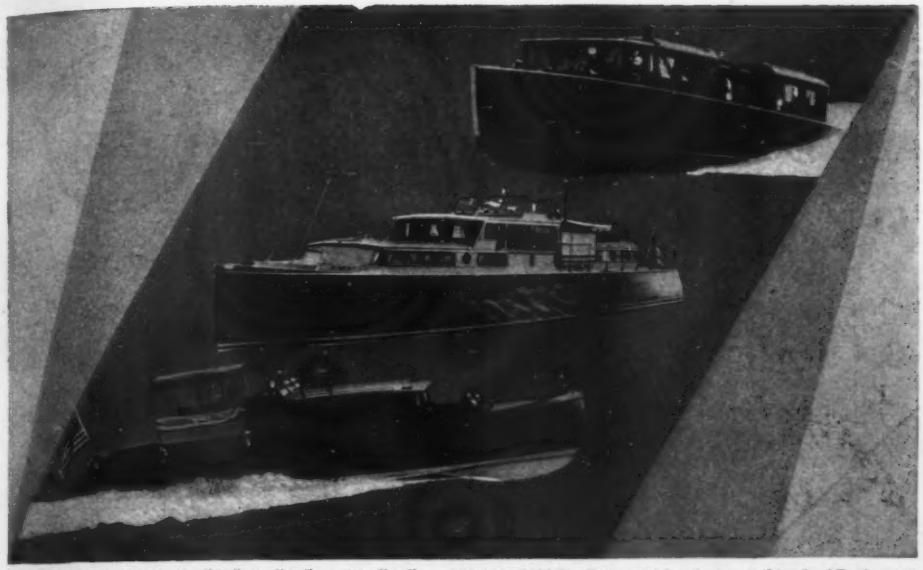
The second International Motorboat Competition in Venice, which has been approved by the Federazione Italiana Motonautica and by the U. I. Y. A., Bruxelles, will take place from the 17th to the 22nd of September 1930. The meeting is under the High Patronage of H. R. H. the Crown Prince of Italy, while H. R. H. the Prince of Udine is the Honorary President.

Valuable cups and money prizes to the value of more than $15,000 will be awarded to the winners. This year the program has been enlarged by the championship for outboards, in which all the outboard classes established by the U. I. Y. A. can take part. To promote motorboating and to satisfy the wishes which the committee got chiefly from the U. S. A., England and Germany, in the program are included also races for cruisers up to 6 liters, which are a very popular type in these countries.

Last year the committee tried to have a part of the races on the open sea along the beach of the Lido but it was clear that the open sea is never calm enough to allow the development of very high speed. The committee was accordingly forced to let the boats run on the inner circuit, which lies on the inner side of the Lido in the Lagoon and which offers the same calm water surface as the lakes on which other International motorboat regattas take place. Along the shore large and comfortable platforms will be placed and from there to the Lido a motorcar service will be arranged for the transportation of the spectators.

(*Continued on page* 186)

Advertising index will be found on 3rd last page



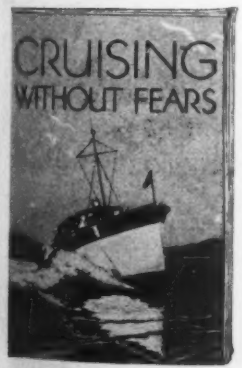
Three Chris-Craft Models, the "38", the "48", and the "34", on which the LUX Fire Extinguishing System is Standard Equipment.

On Chris-Craft Cruisers— LUX is Standard

THE trim lines and efficient power of the Chris-Craft fleet are compelling attractions to the boat buyer. The desired comforts of water travel are combined with the safety upon which every boatman insists.

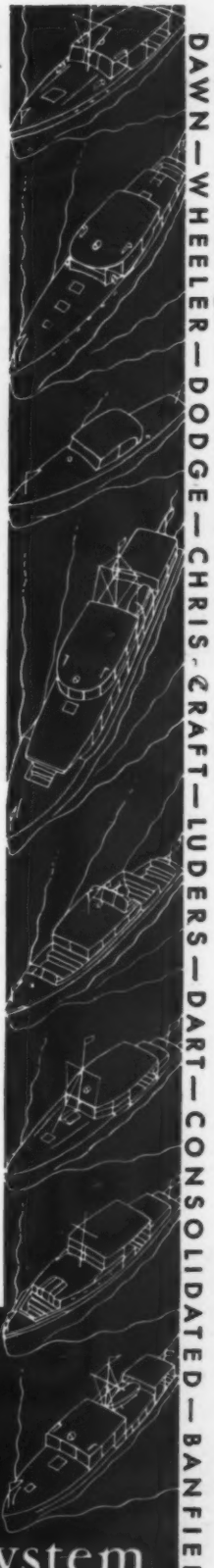
Sleek mahogany hulls shed the spray... snug cabins shelter from the wind... and the LUX System stands ready to snuff out any fire—no matter how terrific—in 10 seconds.

At the first flash of flame, LUX automatically fills the engine space with harmless, non-poisonous, but fire-killing carbon dioxide. Evidence of the effectiveness of the LUX System in extinguishing oil and gasoline fires is found in the fact that twelve of the leading boat builders are offering LUX as standard equipment.



Send for free booklet "Cruising without Fears," describing the LUX System.

Walter Kidde & Company, Inc.
140 Cedar Street
New York



DAWN—WHEELER—DODGE—CHRIS-CRAFT—LUDERS—DART—CONSOLIDATED—BANFIELD

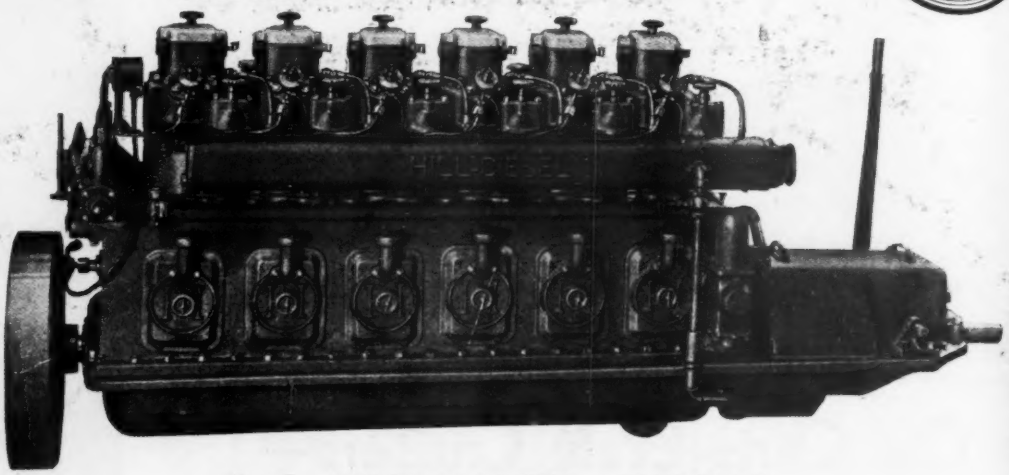
LUX
Fire Extinguishing System

LABELED BY UNDERWRITERS' LABORATORIES

SAFETY—FOR YOUR FAMILY AND GUESTS
ECONOMY—WELL—FOR A GOOD REASON
RELIABILITY—FOR YOUR PEACE OF MIND

THESE ARE THE REASONS FOR HILL-DIESELS

HILL DIESEL



5" x 7" — ONE TO SIX CYLINDER — 10 TO 75 H.P.
6" x 10" — FOUR TO SIX CYLINDER — 60 TO 120 H.P.

PROPULSION ENGINES. ALSO AUXILIARY GENERATOR—COMPRESSOR SETS—BULLETIN No. 60

HILL-DIESEL ENGINE COMPANY, 248 Mill St., Lansing, Mich.

CALENDAR OF COMING EVENTS

(*Continued from page 26*)

SOUTH JERSEY EVENTS

Martin N. Fritsch, Box 325, Mays Landing, N. J.

June 7—Reeds Beach, Delaware Bay.
May 30—Mays Landing, N. J.
June 15—Laurel Lake, Millville, N. J.
June 21—Atlantic City, N. J.
June 22—Somers Point, N. J.
July 4—Chestnut Neck, N. J.
July 5—Lu Lu Yacht Club, Atlantic City, N. J.
July 12—Wildwood, N. J.
July 19—Cape May, N. J.
August 2—Port Norris, N. J.
August 3—Avalon, N. J.
August 9-10—Stone Harbor, N. J.
August 16—Brigantine, N. J.
August 23—Ocean City, N. J.
August 30—Margate Longport, N. J.
September 1—Lower Bank, N. J.
September 6—Mays Landing, N. J.

CALIFORNIA REGATTAS

A. L. Bobrick

111 Garey St., Los Angeles, Calif.
July 4—Alamitos Bay, Long Beach, Calif.
August 10—Balboa, Calif.
September 9—Admission Day—Lake Merritt, Oakland, Calif.
November 29—Salton Sea, Calif.
December 6-7—Lake Elsinore, Calif.

ADIRONDACK REGATTA CIRCUIT

H. C. Eckert, Box 208, Saranac Lake, N. Y.

July 3-5—Albany Boat Club.
July 19-20—Troy Motorboat & Canoe Club.
Aug. 2—Tupper Lake Speed Boat Club.
Aug. 8-9—Saranac Lake & Waterways Club.
Aug. 11—Lake Placid Boat Club.
Aug. 13-14—Rouses Point Boat Club.
Aug. 16-17—Westport Yacht Club.
Aug. 23-24—Clayton Boat Club.
Sept. 26-27—Iriquois Yacht Club (Montreal).

YARD AND SHOP

(*Continued from page 184*)

CHRIS-CRAFT AT MIAMI BEACH

The yachting season is just getting under way and reports come from Florida that Chris-Craft motor boats are again making themselves prominent by winning races regularly. Thursday, March 27th, was the scene of the runabout race at Miami Beach and it is interesting to note that in the 250 h.p. class, Chris-Craft motor boats won first and second places against a large field. Also in the 125 h.p. class these famous motor boats came in first, second and third. In the other race, a grand free-for-all, which included hydroplanes as well as displacement boats, second and third places were taken by Chris-Craft boats. Winner of this race happened to be a 151 cubic inch hydroplane which of course was not in the class with Chris-Craft. The winner was purely a racing proposition and the boat constructed throughout of the lightest materials. In other words Chris-Craft had another most complete victory at Miami Beach.

A JOB FOR THE MOTORS

Regardless of weather—100 degrees above zero or 40 degrees below, the Conservation Commission of the State of Wisconsin must continue its work of protection and propagation of the state's wild life. Even during the coldest winter months frequent trips are necessary through the ice-filled waters of northern Wisconsin. But if housed in a comfortable boat powered with reliable Universal motors, such a trip may be quite comfortable.

Admiral is one of a fleet of boats owned by the Conservation Commission. Recently it was covered with six inches of ice after it had plowed its way through eight inches of ice on Green Bay. Admiral is a fifty-footer, 1¼-inch oak planking, and of unusually heavy construction throughout. It is powered with two Universal Eight-cylinder marine motors with reduction drive and attains a speed of sixteen miles an hour.

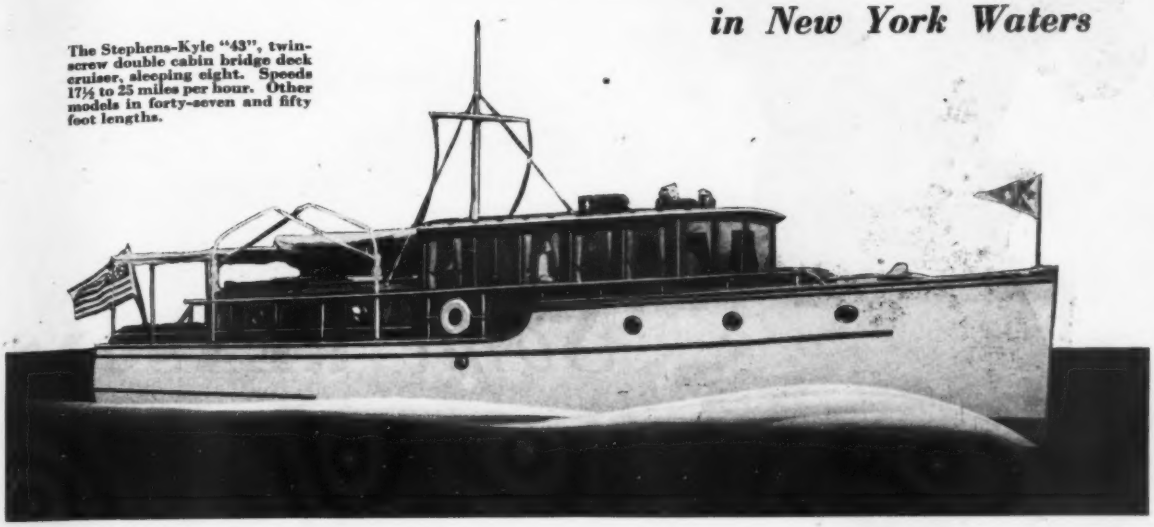
(*Continued on page 190*)

Advertising index will be found on 3rd last page

Three Popular Cruisers and Commuters

for IMMEDIATE DELIVERY

in New York Waters



The Stephens-Kyle "43", twin-screw double cabin bridge deck cruiser, sleeping eight. Speeds 17½ to 25 miles per hour. Other models in forty-seven and fifty foot lengths.

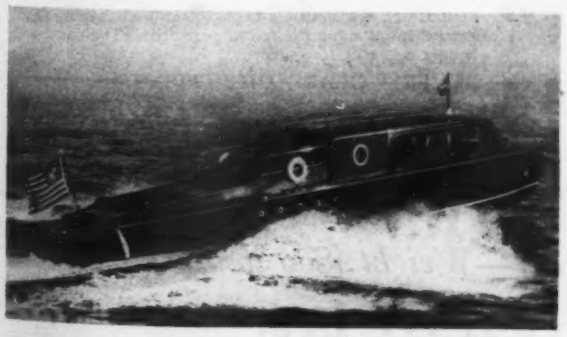
THE Sales Department of the American Boat Corporation, builders of A. B. C. House Boats and motor craft, has been appointed New York representatives for these popular makes of cruisers and commuters . . . . . the Stephens-Kyle "43", "47" and "50" Cruisers . . . Corsair Thirty and Thirty-Six Foot Cruisers . . . . . Robinson Seagull Thirty-Nine Foot Commuters and Forty and Forty-Five Foot Cruisers. Each of these boats is the leader in its class, surpassing other craft of equal size in quality, design, performance and value. The boats are available for inspection in New York and for early delivery on orders placed promptly.

AMERICAN BOAT

S. CLYDE KYLE, Vice-Pres. & Gen'l. Mgr. Corporation, Inc.

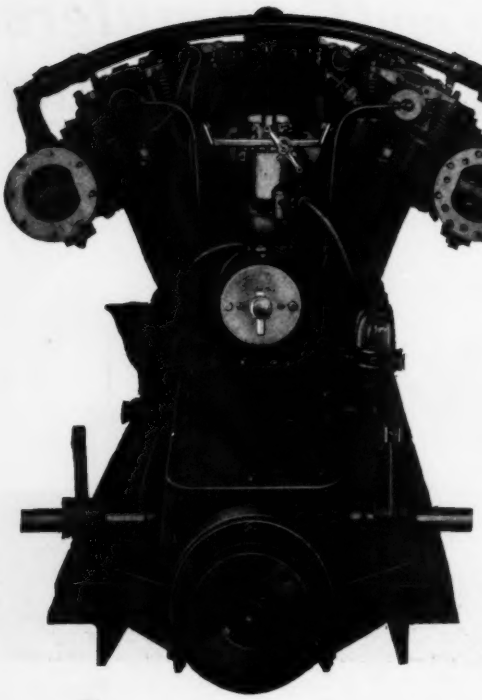
General Motors Building, 1775 Broadway, New York

Cruisers from twenty to fifty feet. Commuters, Sport Cruisers. Sailing Yachts, Small Boats.



Robinson Seagull 39-foot Sedan Cruiser-Commuter. Speed 33 M.P.H. with 200 H.P. motor. Also 40 and 45-foot models with speeds up to 36 M.P.H.

The Corsair Thirty-foot Cruiser sleeps four; also available as day or fishing boat sleeping two. Speed 18-20 M.P.H. with 100 or 125 H.P. motor. Other models include 36-foot open and enclosed bridge deck cruisers.



Some REASONS *~among others~ why* VIMALERT *stands out*

1 CYLINDERS
All steel construction, all machine finish, and uniform wall thickness, insure even and speedy cooling, and preclude cracking.

2 CYLINDER WATER JACKETS
A special and unique feature of all Vimalert Engines. Indefinitely offsets corrosion. Jackets are welded to cylinders, Armco pure iron of 9/64 inch thickness being used.

3 EXHAUST PORTS (extra heavy)
Cooled by special aluminum alloy, water-cooled manifold.

4 EXHAUST VALVES
Tulip shaped, of silicon chromium steel. Especially made to withstand heat and assure long life.

5 VALVE SPRINGS
Made of chrome vanadium steel of special design giving smooth operation and durability at high RPM's.

6 IGNITION SYSTEM
New type, Delco dual system, with Robert Bosch 12 volt, extra large generator.

7 FUEL PUMP
Barlow roller fuel pump, mechanically driven. Maintains constant and even pressure of fuel on carburetor.

8 WATER PUMP
Monel driving and pumping gears in bronze case. Simple in construction, self-lubricating and accessible.

9 OIL PUMP
In bronze case; accessible; steel gears, with outside pressure adjustment.

10 REVERSE GEAR CASE
Heavy duty; split in middle. Reversing gear can be removed without disturbing engine. Reassembly is simple, and easily effected.

11 REVERSE GEAR
Reversing gear is of double clutch type. Oil is confined to special gear case chamber and cannot circulate through other parts of engine.

12 FLY WHEEL
All-machined and balanced. Runs in a dry chamber and automatically removes condensation or oil leaks.

13 STARTING MOTOR
Mounted on gear housing. Engagement is effected through a Bendix spiral automatic return gear drive. The starter and Bendix are easily accessible.

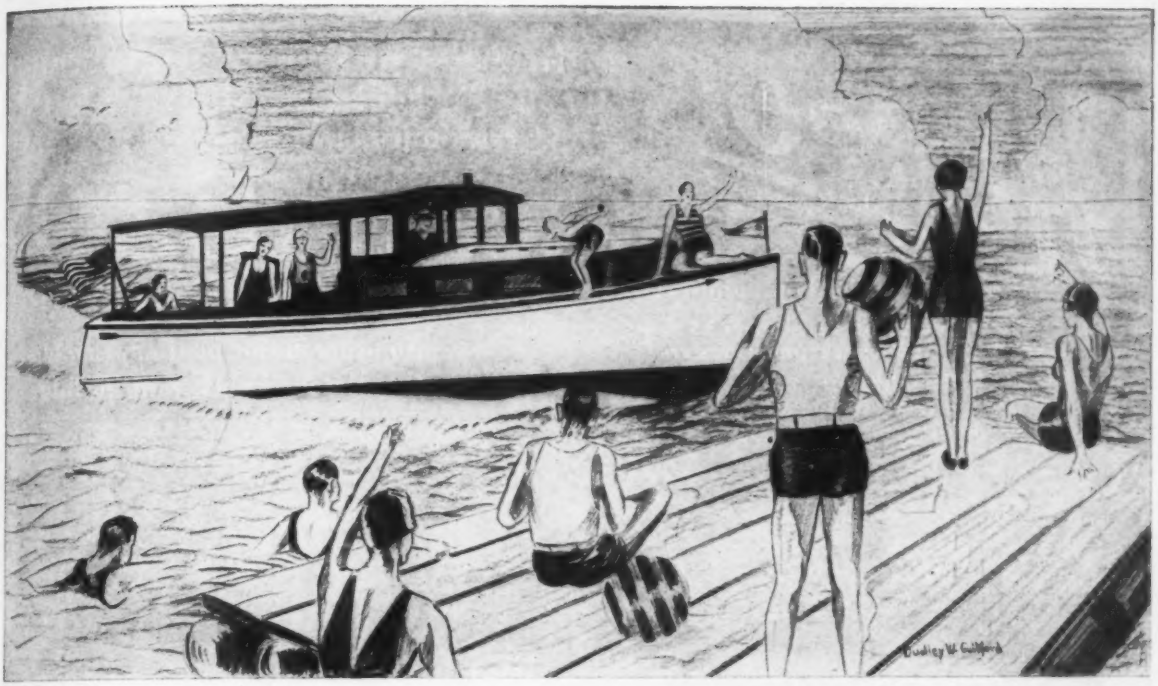
14 REVERSE GEAR ADJUSTMENT
Reverse gear band adjustment can be made while engine is in rotation.

15 DOUBLE THRUST BEARINGS
One is mounted on crankshaft. The other is on rear of gear housing, and has a very heavy duty roller bearing.

425 H.P. at 2000 R.P.M.—Weight 1800 lbs.

THE VIMALERT COMPANY, LTD.
835 Garfield Avenue **Jersey City, New Jersey**

Advertising index will be found on 3rd last page



▲▲▲ It's Great Fun to Cruisabout

and the cost is exceptionally low!

▲▲▲ Cruisabouting is more than a fifteen minute rush to and fro at break neck speed — it's joyous *living* aboard a roomy, jaunty yacht.

▲ *Cruisabouts* provide every comfort and convenience. The spacious cabin is brilliantly decorated and trimmed and contains a toilet room, four soft, comfortable berths and a complete galley together with plenty of locker and storage space. Beside these found-at-home cabin conveniences there is a large cockpit where you and your guests can stretch out and enjoy the cool breezes and the moon-lit nights.

▲ Living is a vagabond adventure on a *Cruisabout*. Swimming and fishing are just over the rail. Meal time in the complete galley is a joy rather than a task. Each day brings new scenes and new adventures as easy as a wish.

▲ Sensational value is found in the *Cruisabouts*. The Single Cabin *Cruisabout* is priced at $3585 in the water at the factory; the Double Cabin *Cruisabout* sells for $4185 — prices far below those for any other cruiser of equal quality, size and speed.

▲ Write today for Richardson Cruisabout booklet E completely illustrating and describing these greatest of all 29 foot cruisers which may be purchased on the deferred payment plan if desired. Richardson Boat Company, Inc., 353 Sweeney Street, North Tonawanda, N. Y.

Richardson Cruisabouts

"The greatest cruiser value in pleasure boating"

Dealers

New York City
BRUNS-KIMBALL & CO.
5th Ave. and 15th St.
Philadelphia, Penn.
BRUNS-KIMBALL & CO.
102 South Fourth St.
Boston, Mass.
WALTER H. MORETON CORP.
1043 Commonwealth Ave.
Long Island, N. Y.
F. D. HOMAN
78 Riverside Ave., Amityville
Chicago, Ill., S. M. DEERING
1454 Builders Bldg.
Houston, Texas, PEDEN CO.
Detroit, Mich., ALLMAND, FRENCH & THOMPSON, INC.
6460 E. Jefferson Ave.
Cleveland, Ohio, N. J. SHEA
1424 Lauderdale, Lakewood
Rochester, N. Y.
VOLNEY E. LACEY
Charlotte Station
Washington, D. C.
A. B. CLARKE
610 Carpenters' Bldg.
Tenth & K Sts., N. W.
Cincinnati, Ohio
J. A. SCARLETT
436 E. Second St.
Erie, Penn., GEORGE BENDER
Erie Yacht Club
San Francisco, Calif.
BOARDMAN & FLOWER
1740 Van Ness Ave.
Buffalo, N. Y.
HILL-MADDEN BOAT CORP.
Genesee Motor Ramp
Peoria, Ill., C. O. HORSTMAN
813 So. Washington St.
St. Louis, Mo.
MISSISSIPPI VALLEY YACHT SALES CO.
Times Bldg., Alton, Ill.
Toronto, Ont., Canada
T. B. F. BENSON
371 Bay Street

Specifications

LENGTH, 29 feet, Beam 8 feet 10 inches, Draft 2 ft., 4 in.

HEADROOM, Main cabin, 5 ft. 11 in.; Stateroom cabin 4 ft. 7 inches; Cockpit, 6 ft.

KEEL, (Single length), stem, stem knee, stern knee made from selected 3" White Oak.

RIBS, 1½" x 1¾" selected steam bent White Oak and spaced 10" centers.

SHEER CLAMPS, in one piece, full length of boat.

STERN TRANSOM, Philippine Mahogany, spar varnished and polished.

PLANKING, ⅜" clear Western Cedar.

COCKPIT CANOPY, Cedar covered with canvas, painted and varnished.

CABIN TRUNKS, coaming, windshield and all other bright finished woodwork of Philippine Mahogany.

CABIN INTERIOR, finished in ivory enamel with Philippine Mahogany trim.

GASOLINE, stored in two 30-gallon seamless cylindrical tanks with filters and vents on decks outside cockpit coaming.

FRESH WATER CAPACITY, 30 gallons stored in galvanized Copper Steel tank.

MOTOR, 6 cylinder 60 H. P. completely equipped.

BRASS & BRONZE Deck Fittings, Shaft, Stuffing Boxes, Rudder, Rudder Post, Steering Gear, and Propellor.

SPEED, 13 miles an hour with Gray 6-60 Motor, up to 24 miles an hour with 8-110 H. P. Motor.

Meteor

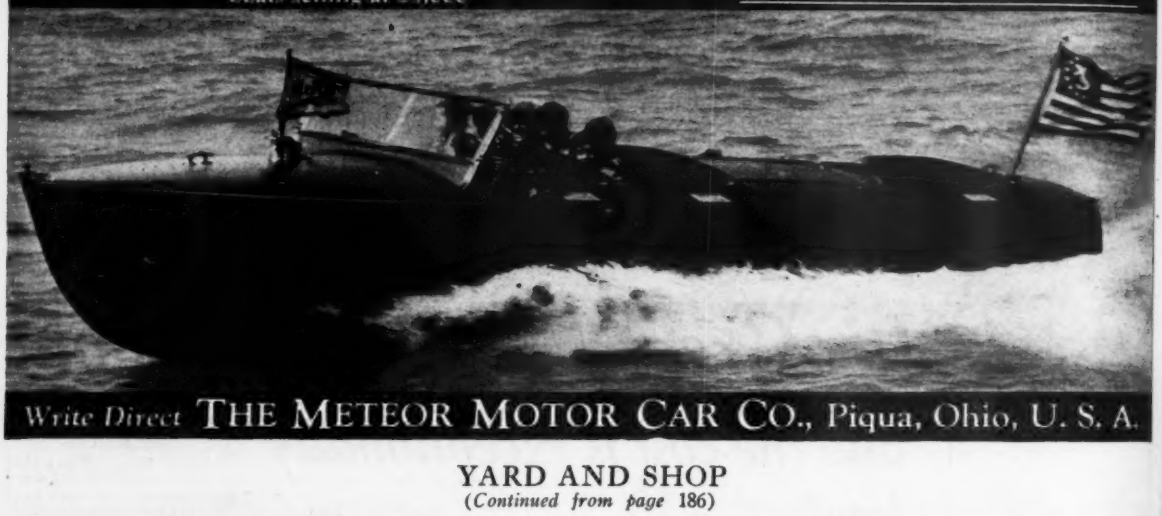
27 ft. All Mahogany Runabout
30 miles per hour - 8 cyl. - 115 H.P.
Carries ten persons comfortably
ALL SALT WATER CONSTRUCTION
$1850
Price f. o. b. Piqua

Undeniably Greatest Value in the History of the Marine Industry

Direct sales eliminate 25 to 40% commission allowed agents or dealers

The Meteor compares most favorably with boats selling at $3,000

No other motor boat approaches the Meteor in its built-in value



Write Direct THE METEOR MOTOR CAR CO., Piqua, Ohio, U. S. A.

YARD AND SHOP

(*Continued from page* 186)

COMMODORE SAYS NO MOTOR BOAT IS METEOR'S SUPERIOR

Here is an endorsement for the Meteor motor boat from a Beaumont, Texas, owner that certainly covers every phase of the satisfaction that could be expected in the operation of a runabout under conditions that put a motor boat to the severest tests:

Beaumont, Texas
March 8, 1930.

The Meteor Motor Car Co.
Piqua, Ohio.

Gentlemen:

The winter months have now passed and, before starting another season, we must tell you how the Meteor boat is standing this twelve-months-a-year service on the Gulf Coast. Two words will cover the whole report and they are ABSOLUTE SATISFACTION.

A boat in this country gets every kind of weather, water and wind. It is in the water all of the time and is subject to both fresh and salt water conditions. Our boat has needed just two spark plugs and one propeller change since it was purchased. The latter can not be charged against the boat for our rivers are at times full of debris.

The writer, by virtue of his office of Commodore of the Beaumont Yacht Club, is asked to try out all of the boats offered for sale here and it is a fact, rather than a compliment, that none offer the sturdy design and construction that the Meteor does. As to values, there is no difference between this and the other models selling from three to five thousand dollars. It is regrettable that the general boating public does not realize that sales methods alone are responsible for this large saving. We have been buying Meteor products for years and will continue to do so for the thousands of dollars saved by us are appreciated.

We are having some pictures made of this boat in action and as the deep sea fishing will soon start, we will send you actual proof of boat's ability.

Wishing you the greatest of success for the coming years, we beg to remain.

Yours truly,
Pipkin & Brulin Co.
By K. T. Hotchkiss.

N. Y. HYDROGRAPHIC OFFICE MOVES

On April 10, 1930, the New York Branch of the Hydrographic Office moved to new quarters in the South Ferry Building, 44 Whitehall Street or 6 State Street. The State Street entrance is the more convenient of the two. The new office is on the 6th floor, rooms 626-627, and the telephone number remains the same—Whitehall 9126.

The U. S. Coast and Geodetic Survey, Department of Commerce, occupies Room 328 in the same building.

NEW COLUMBIAN PRODUCTS

The Columbian Bronze Corporation of Freeport, Long Island, manufacturers of Columbian propeller wheels and specialists in bronze and alloy castings are offering four new Columbian products. It is now possible to obtain solid bronze struts practically from stock, thereby eliminating the necessity of having special patterns constructed, the cost of which frequently exceeds the actual cost of casting. The Columbian company have made up a great number of patterns so that it is now only necessary for the customer to specify the diameter of the shaft, the drop and the angle in order to secure a strut which will exactly meet his requirements. The range of patterns is so large as to include practically any size which might be required for the average boat and the purchaser has a choice of bearings.

A new bearingless propeller shaft bilge pump is also offered which represents a distinct advance in water pump construction, inasmuch as it requires no lubrication and the elimination of wear makes it good practically forever.

Another specialty that Columbian is producing is a line of manganese bronze tiller quadrants of superior design and construction. Oversized grooves prevent binding of the rope or cable and split hubs are available to fit square rudder stocks. The other new product is an improved type of shaft log which embodies within its construction a universal joint which makes it self-aligning and exceptionally easy to install. It is made of high grade bronze with gland type stuffing box and long bearing with no loose pieces or thin sections. A very important feature is the fact that when wear takes place the bearing section only need be replaced.

(*Continued on page* 192)

Advertising index will be found on 3rd last page

Robinson Seagull Speed Cruisers

Equipped, we are proud to say, with

SANDS

PLUMBING FIXTURES

In striving for that perfection of equipment which has made the modern motor boat a marvel of luxury and convenience it is noteworthy that the great majority of builders and marine architects specify Sands Plumbing Fixtures.

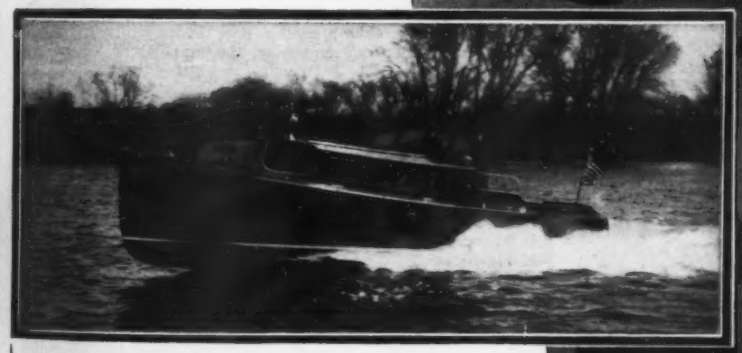
Sands superiority is established, recognized and generally admitted. If your fixtures are Sands everyone knows that you have the best. Nothing else can give greater refinement to a yacht's equipment — nothing adds greater selling value.

The entire boating industry recognizes the exceptional merit of the new Robinson 40-foot Seagull Custom Speed Cruiser—that's why we are proud to say "it's Sands equipped."

Sands prestige is founded upon actual superiority. In design, materials and construction Sands Fixtures unquestionably lead—greater beauty, utility and economy is actually built into each fixture—tangible, undeniable and apparent to anyone.

Catalog on request

A. B. SANDS & SON CO.
20-24 Vesey Street
New York City



Order from your Nearest Distributor:

New York City: E. J. Willis Company
New York City: W. & J. Tiebout
New York City: The Durkee Company
Boston, Mass.: The Wm. H. Gallison Co.
New Bedford, Mass.: C. E. Beckman Company
Philadelphia, Pa.: Marine Equipment & Supply Co.
Baltimore, Md.: The Wm. H. Whiting Company
Baltimore, Md.: James Walker Company
Chicago, Ill.: Geo. B. Carpenter & Co.
San Francisco, Cal.: Johnson & Joseph Company
Los Angeles, Cal.: Smith Sales Company
San Pedro, Cal.: Marine Hardware Company
San Pedro, Cal.: The C. J. Hendry Co.
Seattle, Wash.: Pacific Marine Supply Co.
Portland, Oregon: Oregon Marine Supply Co.
Toronto, Ont.: John Leckie, Limited

MARBLEHEAD "34"
100 H.P. Kermath - Speed 17 miles
Write for Literature
STAPLES, JOHNSON & CO.
BIDDEFORD, MAINE
MARBLEHEAD'S are Displayed, Sold and Serviced by the following:
New York City—New York Boat Service Co., Clason Point; Stamford and Norwalk, Conn.—Motoryachts Co.; Toms River, N. J.—Toms River Boat Works, Inc.; Red Bank, N. J.—Floyd E. Brady; Boston, Mass.—Savage Boat Co., Ltd., 585 Boylston St.; Portland, Maine.—Albert G. Frost
IT COSTS LESS TO BUILD BETTER BOATS IN MAINE

YARD AND SHOP

(*Continued from page* 190)

A TRIBUTE TO CONSISTENCY

Sub-zero weather, with a biting raw wind off the ice-cakes of Lake St. Clair that seemed to penetrate clothes and even flesh—what a day for anyone to hug the radiator and thank heaven for steam heat! While gray clouds of wind-driven snow danced and beat around the boat-wells at Belle Isle, men inside—near-frozen men who worked with numb fingers—labored over cold motors tuning them up for the severest test that any outboard can undergo—that of starting under Arctic conditions. And supervising it all—lending a hand here, criticising, advising—stood the red head who is behind the production of Caille Red Heads—W. Campbell Moore, known throughout the industry as Cam.

Now, it wasn't altogether necessary that Cam Moore be up at the boat well on that dreary day last winter, for motors were being tested in balmy Florida at the same time, and he could just as well have picked this soft spot for himself, and delegated the tough job to a dozen willing subordinates. But it was typical of the man to be out on the firing line, where the going was the toughest, undertaking the hardest job along with his men, for to Cam there coud be no short cuts, and only one way to do a perfect job—the right way.

W. Campbell Moore is no theorist about his work. Starting as a boy in the great Cramp Shipyards in Philadelphia, he learned his trade from the ground up—first as a machinist, and then as a skilled mechanical designer. Today there is no machine in the entire Caille plant that he cannot run capably and well, nor is there any operation that he does not understand thoroughly, and which he is not competent to inspect from beginning to end. Cam does know machinery of all kinds, for to him it is of prime consideration that tools be right in turning out a job. Due to this highly specialized knowledge and understanding, many pieces of equipment in the Caille plants have been scrapped, and replaced with newer ones—not necessarily because they were worn out, but because the later designed machines were capable of faster and better work, and increased production. In view of Caille's constantly expanding sales program, such steps are extremely important.

Through his service with the Victor Talking Machine Company, as superintendent, and the Cadillac Motor Car Company as assistant plant superintendent, he has learned much about the modern metals and alloys which have played so important a part in revolutionizing present day large-scale production. Cam knows the alloy that will make a certain part do its job best, and when a newer and better one comes on the market, he knows about that, too.

Oddly enough, Cam's hobby these many years has been boating, and his avocation the study of aero-dynamics—the action of air currents on moving surfaces. This has given him an intense interest in the study of the action of propellers, both aerial and marine, and the experience he has gained here has been invaluable in perfecting the Caille Multi-flexible Control device. These studies have also given him a keen insight into the workings of motors with high r.p.m. from the standpoint of durability, and this knowledge has all been incorporated in building the 1930 Red Heads.

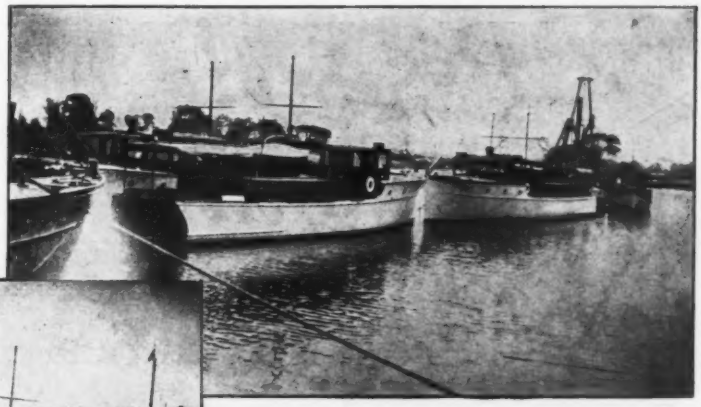
Some poet or other has said, "Oh consistency, thou art a jewel," and here it seems to be exemplified, for a red-headed boating enthusiast is building Red Head Motors to make a better sport for countless thousands. That's consistency—and when it's coupled with loyalty, cooperation, and a product that is outstanding, it makes it a combination that's practically unbeatable.

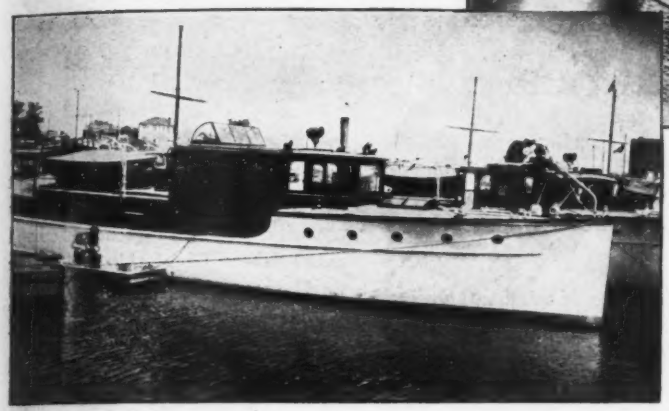
OUTBOARDS TO RACE ON THE WABASH

Plans are under way for a big regatta to take place on Decoration Day on the Wabash River under the auspices of the Wabash Valley Boat Club of Terre Haute, Indiana. More than 55 prizes have been secured for the various events with an aggregate value well in excess of $1,000. A marathon for all classes in divisions 1, 2, and 3 will be run over a 40-mile course from Terre Haute to Clinton and return, with surfboard riding, ski-board riding and other water sports arranged to help make things interesting in the meantime. After a lunch which will be served on the grounds, events will be staged for class B, divisions 1, 2, and 3; a 5-mile runabout race; a 5-mile event for class C, division 3; another for class C, divisions 1 and 2; and a class D event; 5 miles, for division 3. Additional water sports will be engaged in the afternoon if the weather permits.

(*Continued on page* 194)

Hundreds of yachts throughout New York and New England will soon be put in shape for the coming season. Experienced owners start them off right with Socony fuels and lubricants.





The first few minutes are the hardest

play safe with Socony Lubricants

"SEA-FEVER" will get you any day now, whether your boat is a yacht or an outboard. You'll find yourself down looking at her—perhaps putting her in the water . . . starting her engine.

Remember the first few minutes are the hardest on the engine — especially if it has been idle all winter. You need an oil of Socony quality to limber up that stiff motor—to start and keep it running smoothly.

For the very best fuel—a quick-starter too—we recommend Socony Special Gasoline *plus* Ethyl. It's the only *premium* gasoline sold in New York and New England that has had Ethyl fluid added. If your boat is Diesel-powered, she'll run best, of course, on Socony Diesel Fuel Oil with Turex Oil as a lubricant.

SOCONY

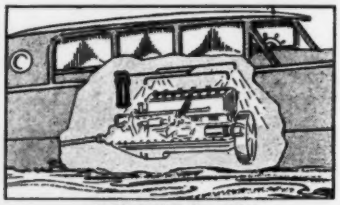
Diesel Fuel Oil · Turex Oil · Gasoline · Motor Oil · Aircraft Oil

SOCONY SPECIAL GASOLINE *plus* ETHYL

STANDARD OIL COMPANY OF NEW YORK

P-s-s-t! fire's out!

Your Guests are Safe From Fire at Sea



5 QUICK FACTS

1. *Easily recharged afloat.*
2. *Compact easy installation.*
3. *Low-pressure operation.*
4. *Simple manual or automatic control.*
5. *Recharges in all ports.*

UNKNOWN to sleeping guests aboard, fire may flicker in engine, bilge or galley. But *instantly* the automatic Pyrene System comes into play and *snuffs it out.*

There's peace of mind in knowing your guests are so adequately protected on an entire cruise. *For this system is quickly recharged afloat.* Simply insert new fire detectors, reset control, refill Pyrene liquid chamber and pump to 100 lbs. air pressure with built-in pump.

And you need never be without Pyrene Liquid for recharging. It is universally used for recharging hand extinguishers. Obtainable in ports the world over.

Complete information on request.

Pyrene Manufacturing Company
NEWARK NEW JERSEY
ATLANTA KANSAS CITY CHICAGO SAN FRANCISCO

NEW PYRENE FIRE PROTECTION SYSTEMS

YARD AND SHOP

(*Continued from page* 192)

WHAT SPEED WILL DO

The conventional boat service as a means of carrying passengers may give way to the adoption of fast runabouts—if speed is a requisite. As an example of the superiority of this new mode of water transportation, Jake Dunnell's experience in his Ludington Sportship is revealing.

People in Miami, Florida, have a habit of embarking in a boat for Elliott's Key, where a splendid bathing beach offers great attraction. The usual time allotted for the trip is 2 hours and 55 minutes.

Jake Dunnell, designer and production manager for the Boat Division of Ludington Aircraft, Inc., Philadelphia, however, in his recent sojourn in Florida has been jumping into his Ludington Sportship and making the trip to Elliott's Key in fifty minutes flat. Two hours and five minutes later the boat would arrive with its passengers as Jake was driving his Sportship back to Miami.

HYDROPLANE CHAMPIONSHIP AT RED BANK

Word has been received by the New Jersey Gold Cup Association from Charles F. Chapman, chairman of the Racing Committee of the American Power Boat Association, that another championship series has been added to the already overflowing schedule of events for the Twenty-eighth Gold Cup Regatta. This regatta is being held on the North Shrewsbury River at Red Bank, New Jersey, on Saturday and Sunday, August 16 and 17, under the auspices of the Red Bank Yacht Club and the Columbia Yacht Club of New York. This latest addition is the series of races to be held during the two-day regatta to decide the American champion in the 151 cubic inch hydroplane class.

The American Power Boat Association is offering the National Trophy which they hold in trust, to the champion. This trophy is the second oldest motor boat racing trophy in America, the Gold Cup being one year older. The National Trophy was first raced for on the Hudson River in a 100-mile race named the National Championship under dates of September 14 and 15, 1905. This first championship race was won by the XPDNC, flying the colors of the Red Bank Yacht Club and owned by Jacob Siegel, one of the founders of the club and chairman of the Board of Directors of the Red Bank Yacht Club for 1930.

The 151 Hydroplane Championships of America are expected to draw a larger number of these little Wasps of the Sea than any other regatta in the United States and Canada held this year. The present world's record for 151s was made July, 1927 by J. H. Rand, Jr., at Albany, New York, where he made the speed of 62.82 m. p. h. over a mile straightaway on a time trial. The fastest lap record made in competition was set up the following December at San Diego, Calif., by the Loynes-Harris team with Miss California. This latter mark will naturally be the goal of the contestants this year.

ELIGIBILITY RULES FOR COLLEGIATE REGATTA

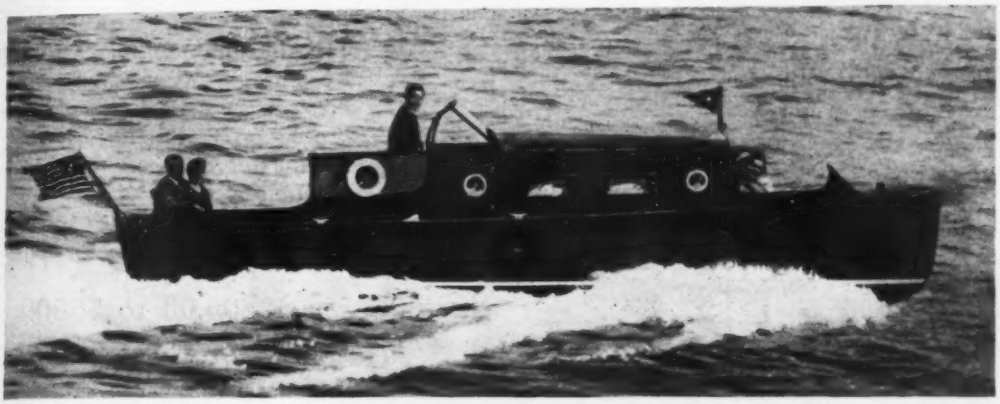
As a means of promoting further interest among college students in the coming intercollegiate outboard regatta in particular, and in outboard racing in general, officials of the Colgate Outing Club of Hamilton, N. Y., have drawn up a special set of eligibility rules to govern the first Intercollegiate Regatta scheduled for May 16 and 17. It is felt that these special rulings will go a long way toward keeping collegiate racing on a proper basis. The proposed rules as drawn up are as follows:

1. All participants must be regularly enrolled students of the institution they are to represent, having been registered as such the first month of the semester or term preceding the semester or term during which the regatta is held.
2. All participants must obtain the signature of that member of the faculty in charge of the institution that ruling No. 1 has been complied with to the satisfaction of that college.
3. No student who has transferred from one institution to another will be eligible to compete until he has completed one year in the institution transferred to.
4. Each student shall be allowed to compete in four annual intercollegiate regattas only.

(*Continued on page* 196)

SEAWOOD

Sunshine Cruiser



Smart-Staunch-Seaworthy

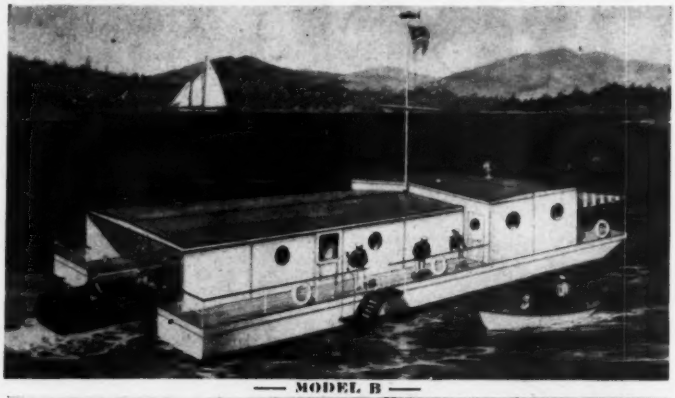
The SEAWOOD Twenty-Five Foot Sunshine cruiser is everything its name implies. A seaworthy craft whose arrangement of accommodations is cheerful, congenial and spacious beyond belief, for a craft of equal size. Furthermore, this unusual cruiser, combining speed and comfort, built of the finest materials and equipped with the latest accessories and furnishings, is offered at an amazingly low price. Among its many features are, large self-bailing cockpit; bridge deck protected by receding plate glass windshield; complete galley; sleeping accommodations; lavatory with latest sanitary fittings, and a self-bailing forward cockpit. No other motor cruiser gives you equal dollar for dollar value. Investigate the SEAWOOD Sunshine Cruiser today. Write now for complete information.

Now on display at our Showroom

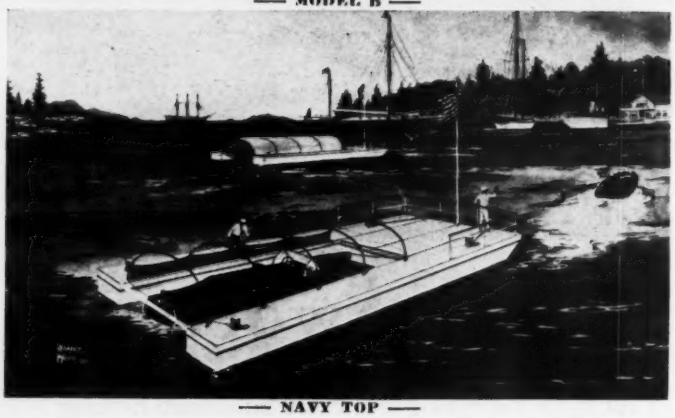
"Seawood" Cruisers can be purchased on convenient monthly payments.

SEAWOOD CORPORATION

16 WEST 61ST STREET, NEW YORK CITY



— MODEL B —



— NAVY TOP —

PROTECTOR SLIP BOATS

The only MARINE GARAGE built.
Absolute WEATHER PROTECTION
Prevents WATER-LOGGING
Protection against THEFT
Engine oil changed same as automobile

Send for descriptive booklet and price list.

$805.00 to $5000

F. O. B. Wiscasset, Maine
Shipped anywhere

The Protector Slip Boats, Inc.
FIDELITY BUILDING
Lexington Avenue at 87th Street
New York City
Telephone Atwater 5600-5601

YARD AND SHOP

(*Continued from page* 194)

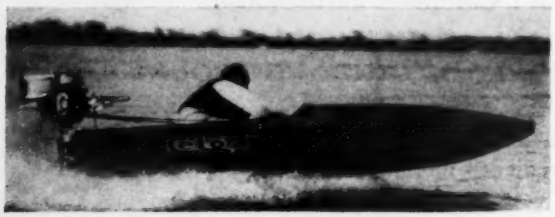
COL. TOOEY WINS LIPTON TROPHY OVER DISQUALIFICATION OF FREY

COMMODORE DAVID MACKAY

At Lake Worth, Palm Beach, on March 22 and 23, in a choppy sea and rain squalls, which made the outboarder's going painful and hazardous, the so-called $25,000 Lipton Cup fell into the lap of Col. S. Tooey of Geneva, N. Y.

Bill Frey, well known consistent driver, was far ahead and an easy winner, but was disqualified because, failing to find an overturned marker, he passed a few feet within the turn. The course judges held to the letter of the law and it just killed Bill Frey, although they admitted the mark was well nigh impossible to see.

In an event of importance involving a trophy so valuable, and an honor so great, it is our unofficial opinion that, under these extenuating circumstances, one of two things should have been done—either it should have been declared no race, because the marker was down, and consequently be re-run, or the man who proved he was the better in two heats and being ahead had no motive ("An act is not a crime unless done with criminal intent") or object in cutting in, been awarded the place he deserved.



Col. Tooey driving Miss Celo, a Faybow Mystery boat, with which he won the Lipton Trophy

Far from there being any attempt to deceive on the part of the contestant, it is much to his credit that he immediately reported at the judge's stand that he had failed to locate the missing buoy on the North Turn, but had taken it as wide as his own best judgment indicated.

The disappointment is the keener as this was his final race of a rather spectacular career in which he scored 76 firsts in 79 starts.

Malcolm Pope of Winter Haven finished first in the three heats of 5 miles, Class C race, driving Baby Ruth, time 10:0[illegible] which is evidence of just what he had to contend with.

The Class D event was won by Jack Kerr, Winter Haven, driving Chico Kid; the Class B by Bill Willis, driving the Milliken entry, Century Cyclone, in 10:03.

The only lady entrant, Miss Wilma Wynne of Jacksonville, pluckily drove Wee Wink through several heats in rough water and handled her boat well, but failed to place.

POINT SCORE

SIR THOMAS LIPTON TROPHY—5-MILE RACE

Open to all motors—three heats

1.	Miss Celo	Col. S. Tooey	1,00[illegible]
2.	Brunhilde	B. E. Lamb	9[illegible]
3.	Century Cyclone	Bill Frey	[illegible]
4.	Gerhilde	W. B. Lamb	7[illegible]
5.	Polly	Clayton Vogel	5[illegible]
6.	Nite Boy	H. M. Frazier	[illegible]
7.	Palm Beach Baby	Eugene Knight	[illegible]
8.	Oh Boy	F. M. Baker	[illegible]
9.	Buck's Baby	C. W. Burks	[illegible]
10.	Seigrune	Jim Daniels	[illegible]
11.	Roseli	E. W. Terry	[illegible]
12.	Flitter	Frank Sanchez	[illegible]
13.	Miss Orlando	R. H. Lester	[illegible]
14.	Wee Wink	Wilma Wynne	[illegible]

With the exception of the Class B event, the J. T. Milliken entries experienced consistent misfortune in the Lipton Race. The West Palm Beach boats either capsized or were forced out in other ways: Eugene Knight dropped his motor after finishing second on the first day, and capsized in the first heat the second day. Ten in all turned over Saturday and four Sunday.

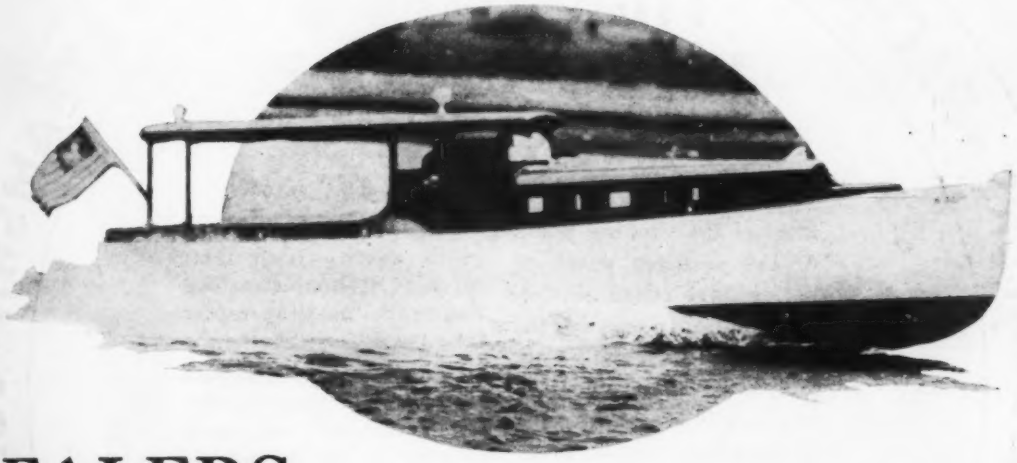
(*Continued on page* 200)

NEW YORK BOAT SERVICE CORPORATION

Distributors for

"MARBLEHEAD 34"

STAPLES-JOHNSON CRUISERS



DEALERS

THE latest model of the popular MARBLEHEAD 34 now on display at our showrooms in New York. We can offer dealers the most attractive proposition ever offered any responsible dealer. A few good territories are open. Your correspondence is invited.

NEW YORK BOAT SERVICE CORPORATION

Subsidiary of Dawn Boat Corporation

The Largest and Most Modern Storage and Repair Yard in New York Waters

STAPLES-JOHNSON CRUISERS DODGE RUNABOUTS

SALES *and* SERVICE

CLASON POINT NEW YORK CITY

Telephone: Westchester 7000

COLUMBIAN
BRONZE PROPELLERS

PLEASURE BOATERS - RACING STARS - OUTBOARD FANS - STEAMSHIP COMPANIES

FISHERMEN - TUG BOATERS

They have a WIDE CIRCLE *of* FRIENDS

Most of the winning pilots of the past ten years of racing have relied on Columbians. Harmsworth, Gold Cup, President's Cup, Miami, etc., are names the fan readily associates with Columbians. And these victory tests of strength and accuracy are recognized as Certificates of Endorsement by pleasure boat owners everywhere.

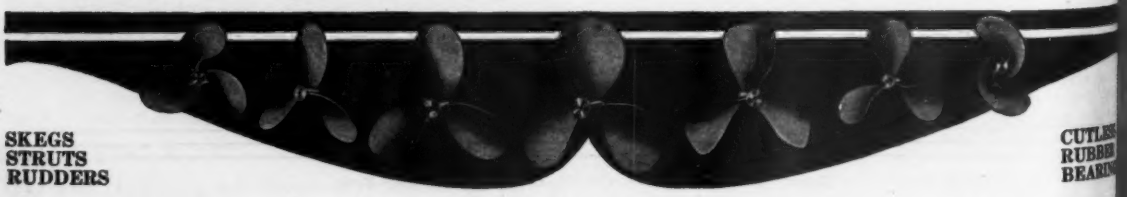
Fisher folk—east, west, north, south—trust their catch to Columbians. Tug and work boat operators take them for granted.

There is a Columbian Propeller for every need—from the little outboard fellows on up to wheels for ocean liners with blades as tall as a man!

May we send you our latest catalog, "Propellers in a Nutshell"?

THE COLUMBIAN BRONZE CORP.
208 North Main St., Freeport, L. I., N. Y.

Cap'n Allswell says:
"Like good friends, Columbians wear well!"



SKEGS
STRUTS
RUDDERS

CUTLESS
RUBBER
BEARIN

Advertising index will be found on 3rd last page

A LUDERSHIP WILL MAKE THIS SUMMER A GLORIOUS ADVENTURE

42 AND 45 FOOT EXPRESS CRUISERS AVAILABLE FOR IMMEDIATE DELIVERY!

YOU may still have a Ludership of your own this summer... and have it when you want it. Our custom-built 42 and 45 foot fast commuting cruisers are on hand for immediate delivery.

If you expect to properly see this season's races — the regattas at New London and Poughkeepsie, the Gold Cup and Bermuda races, the preliminary competitions and the International Cup Races themselves — you'll need a fast, safe, comfortable craft.

Ideally suited to watching offshore races and equally well suited to an afternoon's sailing, commuting or short cruises, the Luders 42 and 45 foot express cruisers assure every desirable advantage that has elevated the Ludership to leadership — plus the moderate maintenance expense of a carefully constructed smaller boat. Immediate action is suggested.

Our 72 footer to order for early summer delivery.

I should like to inspect a Ludership Express Commuter. Please, also, send me specifications.

Name_____

Address_____

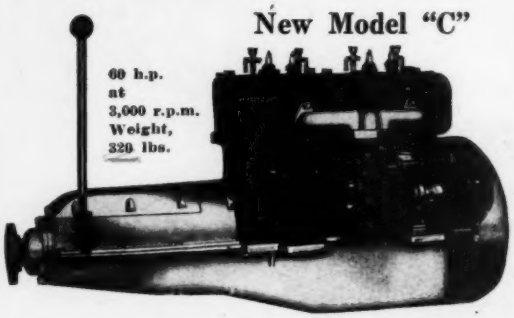
City_____ State_____

LUDERS MARINE CONSTRUCTION CO.

STAMFORD CONN.

JOHNSTON MOTORS

New Model "C"



For fast Runabouts. Equipped with built-in Oil Cooler. A down-draft carburetor is supplied where extreme high speed is required.

Ask us about our Model "OX," 50 H.P. for cruisers, workboats or pleasure boats; our Model "AS," 40 H.P. for medium duty service; and our Model "J," 16 H.P. for general purposes, where small power is required—the lowest priced engine in America.

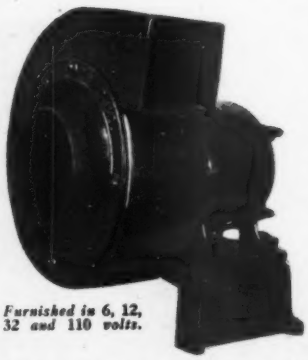
Write at once for details

ROBERTS MOTORS •• Sandusky, Ohio

Manufacturers of marine motors for 22 years from 10 H.P. upward

Your Best Safety Insurance

LEE
SUCTION EXHAUSTOR



Furnished in 6, 12, 32 and 110 volts.

THE presence of gasoline vapors in the bilge or engine compartment of your boat is not only inexcusable, but a potent fire hazard against which you should guard yourself by installing a Lee Suction Exhaustor to remove these accumulated inflammable vapors before starting the motor, and to insure constant forced ventilation while the boat is under way.

Suction exhaustors for clearing the bilges of gasoline vapors are strongly recommended by the National Association of Engine & Boat Manufacturers and by the Board of Fire Underwriters. The Lee Blower or Suction Exhaustor is a highly efficient centrifugal machine having a capacity of 100 cubic feet per minute. It operates on a very small current consumption.

Write today for complete details and price

S. CLYDE KYLE

General Motors Building — 1775 Broadway
New York, N. Y.

YARD AND SHOP

(*Continued from page* 196)

CLASS B—5 MILES—THREE HEATS

1.	Century Cyclone	Bill Willis	1,056
2.	Muriel	Travis Chestnut	1,046
3.	Sunny Girl	B. E. Lamb	1,013
4.	Polly	Clayton Vogel	757
5.	Wee Wink	Wilma Wynne	648
6.	Hav-a-Tampa	Cal Meloon	646
7.	Peanuts	Jim Daniels	361
8.	Flitter	W. B. Lamb	346
9.	Busy Bee	Sid Nelson	289
10.	Topeka Kid	Malcolm Pope	256
11.	Tee-Arm	G. E. Nelson	169

CLASS C—5 MILES—THREE HEATS

1.	Baby Ruth	Malcolm Pope (Time 10:39)	1,200
2.	Flying Indian	Earl Boyer	1,046
3.	Miss Celo	Col. S. Tooey	1,009
4.	Black Magic	W. C. Sirman	834
5.	Polly	Clayton Vogel	801
6.	No Name	M. W. Cole	646
7.	Wee Wink	Frank Sanchez	225

CLASS D—5 MILES—THREE HEATS

1.	Chico Kid	Jack Kerr (Time 9:29)	1,050
2.	Seigrunde	Jim Daniels	838
3.	Baby Ruth's Papa	H. M. Frazier	821
4.	Miss Orlando	Robert Lester	801
5.	Oh Boy VI	Toledo	761
6.	Brunhilde	B. E. Lamb	685
7.	Gerhilde	W. B. Lamb	580
8.	Palm Beach Baby	Dick Upsall	196
9.	Nadia	Travis Chestnut	169

The awards were presented after a dinner given by the Palm Beach Anglers and Sports Club to contestants and guests.

Following the presentations, dancing and a social evening were enjoyed by boatmen from all parts who came to attend both the Palm Beach and Miami Beach Regattas.

OUTBOARD CHAMPIONSHIPS AT RED BANK

The New Jersey Gold Cup Association was formally notified by the Middle Atlantic Outboard Association that the Sectional Championship Races for the Middle Atlantic States will be held at Red Bank, during the Gold Cup Regatta being held on the North Shrewsbury River on August 16 and 17. This word was received at a meeting of all Gold Cup Committee Chairmen held in New York this week, which officials of the Middle Atlantic Association attended. The officers of this Outboard Association are Commodore William E. Eldridge, Vice-Commodore Paul Revere Smith, Rear-Commodore A. Avery Hallock, Treasurer Ira Hand, and Secretary W. E. Willis. These Sectional Championships can be referred to as the semi-finals of the National Outboard racing sport. Prior to these Sectional Championships, races are held throughout the country to select the boats that are to be entered in these races. The winners of these races are then eligible to enter the Eastern Championship races that will decide the championships for the entire country, east of the Mississippi River. The winners of the Eastern Championships, known as the Divisional Championships, will then meet the Western Champions to decide the National Championships of America. These National Championship races will probably be held at Middletown, Connecticut, in October but the decision regarding the sites for both the Eastern and National Championship races will probably not be made before the various Outboard Association meetings held during the Chicago Motor Boat Show.

It was announced at the Gold Cup meeting that weekly talks about the Gold Cup Regatta will be given over Station WJBI, at Red Bank, New Jersey, at 7:45 p. m. every Friday evening.

HEAVY FOREIGN DEMAND FOR AMERICAN OUTBOARDS

A 400 per cent increase in export sales of the Johnson Motor Company, Waukegan, Ill., during the last three years has been reported by E. H. Millet, export sales manager.

The export growth is shown in the following Johnson sales totals: 1927, $145,000; 1928, $454,000; 1929, $712,000.

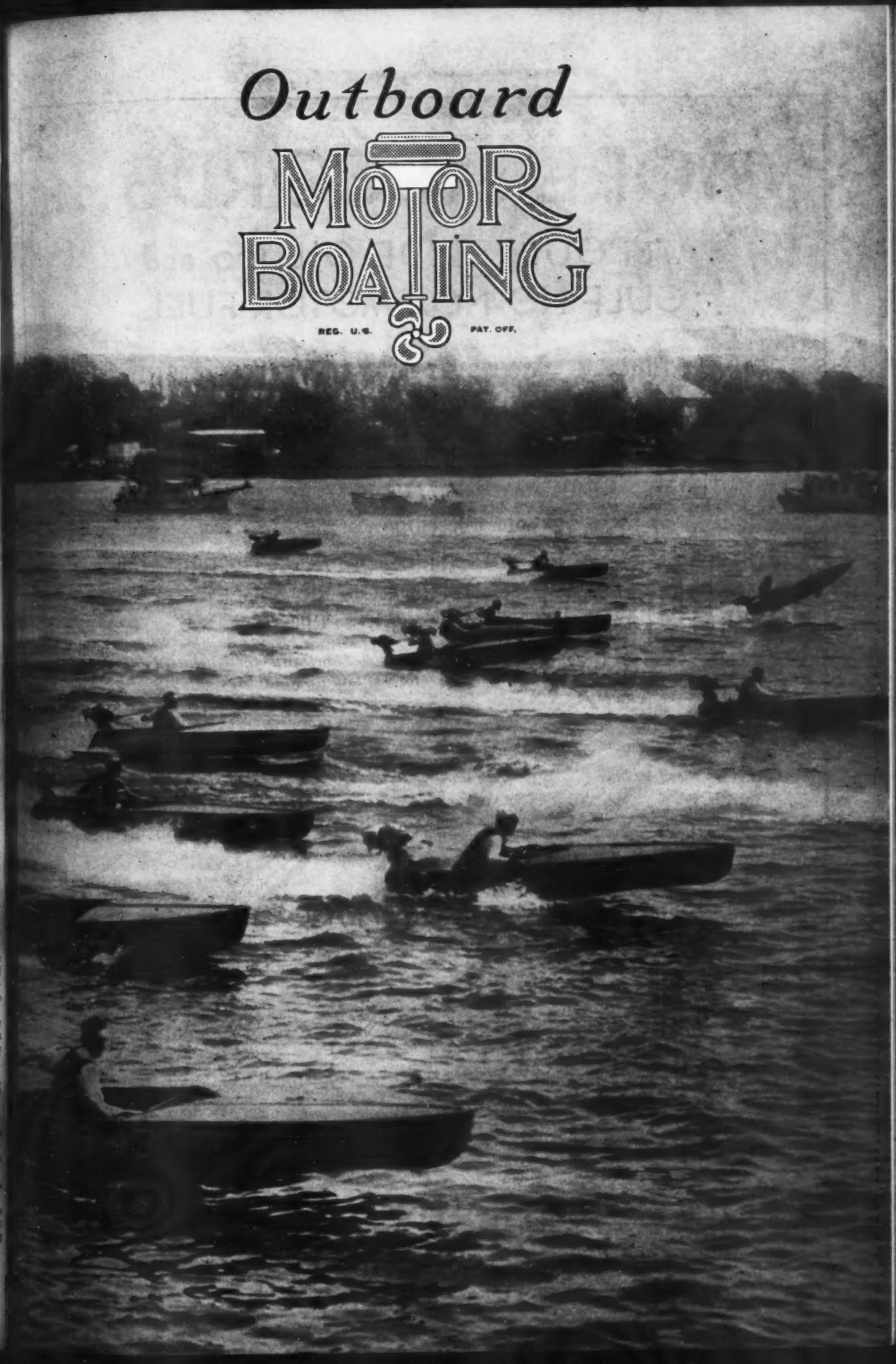
Mr. Millet estimates the 1930 season at approximately 1 million dollars.

This tremendous growth of export sales resulted in the appointment this year of Sidney H. Diman as European director. Mr. Diman is experienced in sales promotion and advertising as practiced in the European countries.

Advertising index will be found on 3rd last page

Outboard MOTOR BOATING

REG. U.S. PAT. OFF.



MORE RECORDS...

with GULFPRIDE OIL 100 and GULF NO-NOX MOTOR FUEL

25 First Place
22 Second Place
22 Third Place

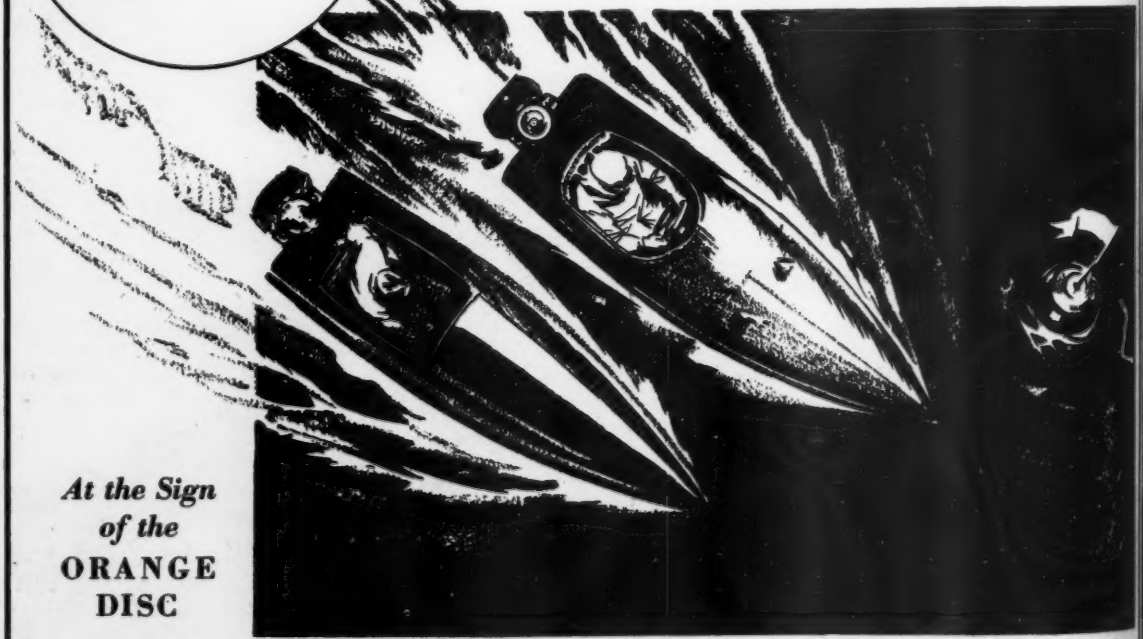
69 out of 93 boats to finish in the first, second and third places in races of the Florida Outboard Motor Association from November 10th, 1929 to January 6th, 1930.

Malcolm Pope, famous Outboard record holder wires from Florida: "We have never before had such perfect lubrication and engine performance as we have experienced this winter with GULFPRIDE and GULF NO-NOX MOTOR FUEL".

GULF

GULFPRIDE OIL 75 GULFPRIDE OIL 120
GULFPRIDE OIL 100 GULFPRIDE OIL 150
GULFPRIDE OIL 200

America's Finest Lubricants for Outboard Motors, Marine Motors, Aircraft and Automobile Motors.



At the Sign of the **ORANGE DISC**

GULF REFINING COMPANY

Advertising index will be found on 3rd last page

Outboard MOTOR BOATING

FIFTY-SEVENTH ST. AT EIGHTH AVE.,
NEW YORK, N. Y.

Edited by
CHARLES F. CHAPMAN

MAY, 1930

CONTENTS

TEN DAYS ON LOCATION..... 205-206
OUTBOARDING ON THE MAGDALENA..... 207-211
LOOKING INSIDE THE OUTBOARD ENGINE.... 212-216
THE MONTH WITH THE OUTBOARDS..... 218-224

Outboard MoToR BoatinG is a regular feature in every issue of MoToR BoatinG. It is fully protected by copyright and nothing that appears in it may be reprinted wholly or in part without permission. Yearly subscription for MoToR BoatinG containing Outboard MoToR BoatinG $3.00 in the United States and Canada. Foreign countries, $4.00.

27 COLLEGES IN REGATTA

Seven more colleges have entered the first Eastern Intercollegiate Outboard Regatta to be held May 16-17 at Skaneateles Lake, New York, under the auspices of Colgate University, according to the National Outboard Association. The new schools to enter are: Amherst, Georgetown, Williams, Yale, Illinois, Hobart and Cortland Normal. At present, a total of forty-six entries have been received from 27 universities and the regatta is certain to be one of the most outstanding boating events held anywhere in recent years.

Incorporated in the plans of the regatta committee at Colgate is the first outboard relay race which has been held in any outboard event to date. Teams from Syracuse, Dartmouth, Rutgers and Colgate have already entered this event which was conceived by Colgate students. The relay will be a seven and one-half mile event.

According to the rules which have been released by the committee, the relay team of each school will consist of three boats, each with a different class of motor attached and each boat will race a standard lap of two and one-half miles. The drivers and the boats entered in this event will wear the colors of the colleges they represent and the trophy to be raced for will be a solid silver cup presented by the Skaneateles Business Men's Club. The relay should be one of the most attractive boat races ever staged.

In addition to the championship races, in which the students will race for the College Humor Gold Cups, arrangements have been made for boat jumping exhibitions, aquaplane races and water jousting matches. Colgate University will stage its annual Outing Club Week End in connection with the races and most of the prominent race officials in the country will be on hand to help stage the race events.

Skaneateles Lake is one of the most beautiful water sites in New York and the racers will be housed and fed free of charge by the business men of the town during the regatta. A dance has been arranged for the drivers and Miss Loretta Turnbull, foremost woman outboard race driver, has been invited by the Colgate Outing Club to become chairman of an honorary hostess committee.

The list of colleges and universities to be represented in the regatta includes Columbia, Cornell, Harvard, Buffalo, Toledo, Syracuse, Rutgers, Hamilton, Union, New York University, Dartmouth, Cortland Normal, Amherst, Brown, Pennsylvania, Williams, Yale, Hobart, Georgetown, Colgate, Clarkson, Middlebury, St. Lawrence, St. Stephens, Michigan, Illinois and Princeton. There is a possibility that several more schools will be represented and the entry list is expected to reach seventy or more.

And How
Fast?
A quick glance at this new speedometer tells you *just* how fast. Once it's on your boat, you'll never be without it. Think of driving a car without a speedometer! . . . It's a great help in navigating by chart and compass—a life saver in a fog—and a constant check on your engine. . . . These fully tested, dependable gauges are rendering valuable service on large and small boats of all types from cruisers to outboards. . . . Passage through the water creates the pressure which is translated accurately into M. P. H. on the dial. There is no connection with motor power, nor towage of apparatus.
NATIONAL MARINE SPEEDOMETER
Outboard Model $18.50 each.
Models A, B, C & D for speeds up to 15, 25, 35, 60 M. P. H. $30.00 each.
NATIONAL LOG
Models H or J for 35 or 60 M. P. H. $150.00 each.
Ask your dealer and if he has none on hand, write us direct and give us his name.
THE NATIONAL LOCK WASHER COMPANY
40 Hermon Street
Newark, N. J.

Unequaled Outboard Motor Performance Plus Multi-Flexible Control!

3 Speeds Forward . . . Neutral and Reverse

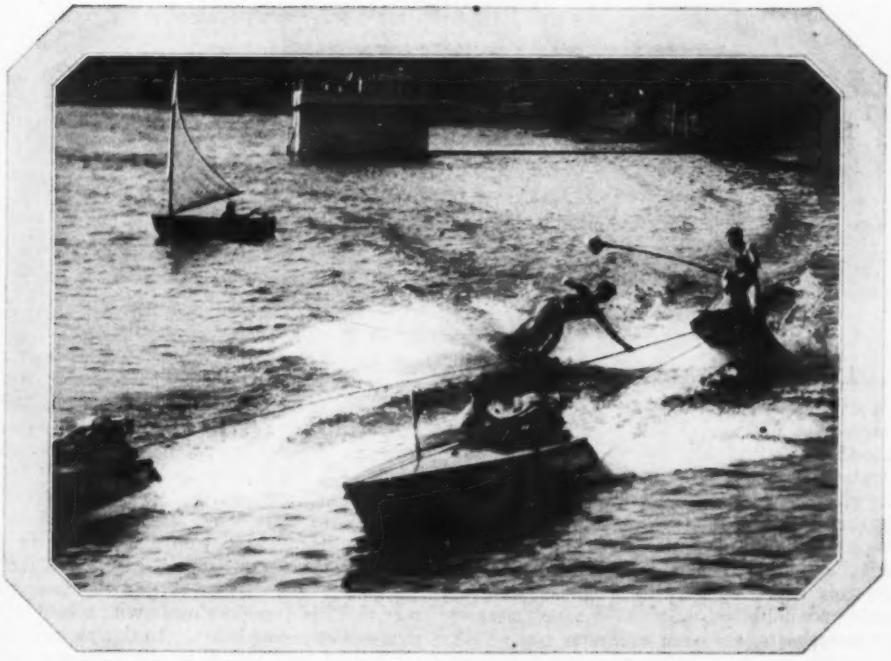
Unlimited boating pleasure is yours when your boat is powered with a Caille Red Head. Its dependable, unequaled power will amaze you. Its ease of handling, through Multi-Flexible Control, will add new thrills to your boating pleasures. Caille Utility Model Red Heads are the only outboard motors with this patented feature—three speeds forward, neutral and reverse. Electric starting, too, if you wish. The racing fan will find Red Head Racing Models the answer to his ambition for speed that will carry him to victory in foremost racing events . . . and all boating enthusiasts will greet Caille Red Heads as the apex of efficient outboard performance . . . smooth in operation, quiet, fast, and dependable. ¶ See the complete line at your dealer's. There is a Caille Red Head model that will exactly fill your requirements and do all the things you have always hoped an outboard would do. Write for 1930 Catalog, showing the complete line, describing Multi-Flexible Control and other Caille mechanical advantages. Also tells how to select the proper motor for your boat.

CAILLE MOTOR COMPANY
6235 Second Boulevard
DETROIT, MICH.

CAILLE
RED HEAD
PERFECT OUTBOARD CONTROL

Advertising index will be found on 3rd last page

Outboard MOTOR BOATING
MAY 1930



Alvin Bush defeats Malcolm Pope in an aqua tilting contest at a 30 mile speed

TEN DAYS ON LOCATION

or

Outboard Motor Boating Goes Hollywood

OUTBOARD Motoring makes its debut in the leading role class by the filming of nearly 10,000 feet of stunts and water sports at Winter Haven, Florida, when a Pathe film, made by the Grantland-Rice-Sportlight, was taken recently.

This feature picture was made solely with the idea of putting before the public the latest developments in outboard motorboating, showing the pleasures of water sports now to be had through their maneuverability, speed, ease of electric starting and durability. In this picture which lasted for ten days, motors and boats were put through more strenuous stunts than ever before.

The personnel included ten beautiful bathing girls, the Director, Dick Pope; Assistant Director, Kenneth Recker; Jack Kerr; Malcolm Pope; Carl Ellis; Wallace Day; Harrison Fraser; Jim Daniel; Dave Leonard; Alvin Bush; Russell Ervin and Rod Warren, Cameramen; and R. J. Swanecamp, Sound man; as well as two local photographers and many extras. This shows the care with which the Director picked his cast. Everybody used was most expert in his particular line. The boys who drove the boats were all skilled racing drivers and the boys who rode the aquaplanes were among the best in the United States in this line. They have been racing outboards for the past three years and during this time have made over forty news reel shots, thus acquiring the skill and nerve it required from everyone to prevent accidents. Several almost occurred which made us realize that we were doing more than playing.

The first day on location was spent in taking pictures of aquaplane steeplechase races. Our cameramen had never taken this type picture before and our problem was to get them boat wise as soon as possible. In our steeplechase racing the first day we used aquaplanes inflated with rubber horses attached to them, and the boat towing the aquaplanes had an approximate 30-mile speed. The object of the race was for each aquaplane rider to take his aquaplane over a series of jumps,

Unequaled Outboard Motor Performance Plus Multi-Flexible Control!

3 Speeds Forward . . . Neutral and Reverse

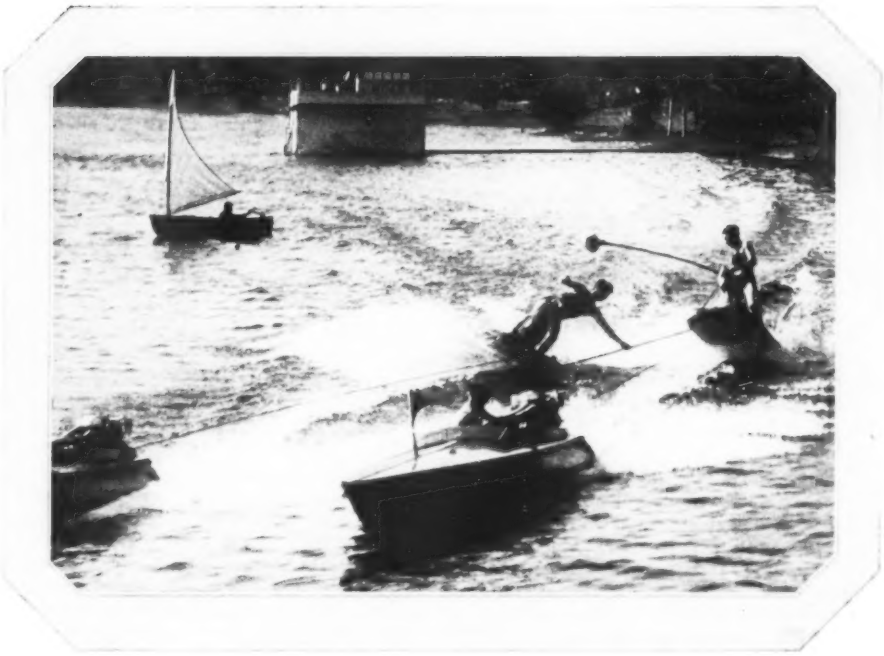
Unlimited boating pleasure is yours when your boat is powered with a Caille Red Head. Its dependable, unequaled power will amaze you. Its ease of handling, through Multi-Flexible Control, will add new thrills to your boating pleasures. Caille Utility Model Red Heads are the only outboard motors with this patented feature — three speeds forward, neutral and reverse. Electric starting, too, if you wish. The racing fan will find Red Head Racing Models the answer to his ambition for speed that will carry him to victory in foremost racing events . . . and all boating enthusiasts will greet Caille Red Heads as the apex of efficient outboard performance . . . smooth in operation, quiet, fast, and dependable. ¶ See the complete line at your dealer's. There is a Caille Red Head model that will exactly fill your requirements and do all the things you have always hoped an outboard would do. Write for 1930 Catalog, showing the complete line, describing Multi-Flexible Control and other Caille mechanical advantages. Also tells how to select the proper motor for your boat.

CAILLE MOTOR COMPANY
6235 Second Boulevard
DETROIT, MICH.

CAILLE
RED HEAD
PERFECT OUTBOARD CONTROL

Advertising index will be found on 3rd last page

Outboard MOTOR BOATING
MAY 1930



Alvin Bush defeats Malcolm Pope in an aqua tilting contest at a 30 mile speed

TEN DAYS ON LOCATION

or

Outboard Motor Boating Goes Hollywood

OUTBOARD Motoring makes its debut in the leading role class by the filming of nearly 10,000 feet of stunts and water sports at Winter Haven, Florida, when a Pathe film, made by the Grantland-Rice-Sportlight, was taken recently.

This feature picture was made solely with the idea of putting before the public the latest developments in outboard motorboating, showing the pleasures of water sports now to be had through their maneuverability, speed, ease of electric starting and durability. In this picture which lasted for ten days, motors and boats were put through more strenuous stunts than ever before.

The personnel included ten beautiful bathing girls, the Director, Dick Pope; Assistant Director, Kenneth Recker; Jack Kerr; Malcolm Pope; Carl Ellis; Wallace Day; Harrison Fraser; Jim Daniel; Dave Leonard; Alvin Bush; Russell Ervin and Rod Warren, Cameramen; and R. J. Swanecamp, Sound man; as well as two local photographers and many extras. This shows the care with which the Director picked his cast. Everybody used was most expert in his particular line. The boys who drove the boats were all skilled racing drivers and the boys who rode the aquaplanes were among the best in the United States in this line. They have been racing outboards for the past three years and during this time have made over forty news reel shots, thus acquiring the skill and nerve it required from everyone to prevent accidents. Several almost occurred which made us realize that we were doing more than playing.

The first day on location was spent in taking pictures of aquaplane steeplechase races. Our cameramen had never taken this type picture before and our problem was to get them boat wise as soon as possible. In our steeplechase racing the first day we used aquaplanes inflated with rubber horses attached to them, and the boat towing the aquaplanes had an approximate 30-mile speed. The object of the race was for each aquaplane rider to take his aquaplane over a series of jumps,

Jack Kerr does some high jumping by riding over an inclined platform at 45 miles

tilted platforms, with barrels for floats. This tests any good aquaplane rider's skill, and many spills were taken before we finished this scene.

Our second and third days were spent shooting scenes of water ski races, going over jumps and tilting. The tilting picture was similar to a canoe tilting contest, with the exception that aquaplanes were used while being towed at a 30-mile speed. Some of the most beautiful action pictures ever shown on the screen were made this day. By this time our cameramen were becoming accomplished sailors. We took pictures from shore, from boats, and from airplanes.

On the fourth day we made a scene of a balloon busting contest, and an archery contest. The balloon busting is one of many games that were started in Florida by the well known outboard enthusiasts, Dick and Malcolm Pope, and it is played by two or more boats with aquaplane riders, each rider having a long pole with a needle in the end of it, and each boat carrying a girl with fifteen balloons which they start tossing toward their aquaplane rider at a given signal, the object being for each rider to spear all the balloons possible, the one spearing the most being the winner.

The archery picture was of similar nature with the exception that the aquaplane riders were equipped with a bow and five arrows each, and were towed at a fast rate of speed past the targets which were set on shore.

The skill shown by Jack Kerr, one of the riders, was surprising. He won every event in the archery picture. This stunt sounds easy, but try it sometime!

On the fifth day we started the most thrilling picture that has ever been made with a boat, a steeplechase race of fast racing boats. In this picture all steel boats were used, and before it was over we were certainly glad we used them. This was the first time that any picture of this nature has ever been made, and we have to hand it to the boys who drove the boats for the amount of daring and cool nerve it took to do this. One of the obstacles was a thin island 40 feet across, over which everybody had to go. The boys hit this island wide open time after time before we got the shots wanted. The boats *(Continued on page 232)*

A race which started as a picture spectacle but wound up in a real speed contest

The scenic beauty of a village on the Magdalena

OUTBOARDING ON THE MAGDALENA

Adventurous Americans Explore South American River in a Folding Canvas Boat With a Small Outboard Engine

By VICTOR B. McMULLAN

OUR first view of the Magdalena river was at Calamar, Colombia, northern South America. The river at this point is about one half mile in width, a sluggish, slow moving body of yellow mud on its way to the Caribbean sea. And in early December when we arrived to begin our expedition, the river was full of floating debris which consisted of a kind of water tulip from the Cacau valley, as well as drift wood which might have been at one time a part of the forest that covers the Andes.

Calamar is a sun baked adobe village at the end of the railway which runs a little more than half a hundred miles from Caragena, a seaport on the Caribbean sea.

It was noon when we arrived at the station in Calamar. With some difficulty we hired a mule driver to haul our equipment to the water's edge about the center of the sleepy, river bordered town. But as we unpacked our canvas boat the Colombians came quickly to life.

We immediately went to work assembling our boat. Half a hundred natives crowded about watching our every move. Three or four brown skinned soldiers stood in the crowd, curious as to what we intended to do. A continuous chatter of Spanish greeted our ears, and every once in a while we caught the whisper, "*Americano.*"

While Phil finished the last touches of assembling our boat, I went to the tropical oil company to get a supply of gasoline. After a great deal of difficulty I managed to purchase several five gallon cans of Colombian gasoline.

When I returned, Phil was nowhere to be seen. A little later I discovered him sitting in the shade of a palm tree. He had almost succumbed to the heat. But a couple bottles of Colombian beer cooled him off and again we went to work. At last we had finished putting the boat together; and with the help of three or four willing natives, we shoved it into the water. We attached the little motor, filled it with gasoline, and went for a trial spin up the river. It worked splendidly. We were pleased. On shore again we invited one of the native soldiers to go for a ride.

"No—gracias!" His white teeth flashed as he smilingly refused to trust his precious life to so frail appearing a craft as this.

We piled our equipment into the small boat along with a supply of plantains and cocoanuts which we had purchased from a market situated on the water front. We were off! The grinning Colombians shouted goodbyes. But wait! The crowd surges a little closer. Stop —. There is a man on shore whom we forgot to pay.

"Who?" I asked, wondering.

"Aguil" (here) came a chorus of voices, and fingers pointed to a tall native standing on the shore.

This fellow, I remembered, had held the boat when we returned from the trial spin. That is—we had thrown the rope to him, and he had steadied the boat while we had stepped on shore and clambered up the slippery bank of yellow mud.

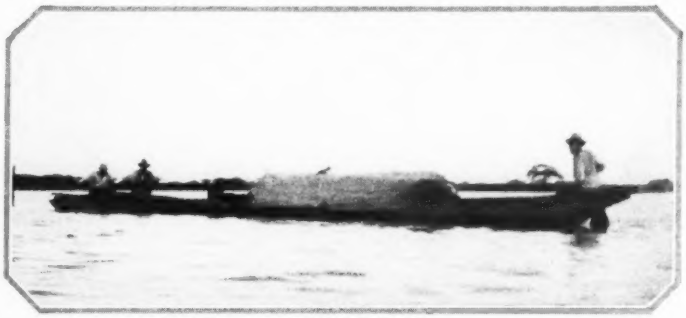
"Oh, yes—como mucho?" I queried.

"One dollar—gold!" he stated triumphantly.

Rather than argue I tossed him a few centavos, and we started the motor again. Put—put— We left a blanket of smoke behind. I held the stick for the middle of the river. Looking back I could see the crowd slowly moving away, to spend the rest of the day talking about the rare occurrence of visitors, Americanos who navigated their native river in a fourteen foot canvas boat.

We were amazed at the current we encountered, the river had appeared so placid when we viewed it from the shore at Calamar. At a point, a few miles above Calamar, the river divides. We took the western branch.

The Magdalena river rises in the Andes in the southwestern portion of Colombia. It flows north for about a thousand miles. At Barranquilla the river divides, and discharges its waters through two channels. A little below Barranquilla both of these channels empty into the Caribbean sea.



A champan, the native mode of commerce on the Magdalena

We had not been on the river an hour until we realized the floating debris would make navigation extremely dangerous for two men in a heavily loaded canvas boat.

The first night we slept in a little village not so many miles from our starting point. The next morning we were up with the sun and on our way. As we proceeded up stream we saw numerous alligators swimming near us. Only their heads were visible, the rest of the body being submerged. Occasionally we noticed one sunning himself upon the bank.

In the water an alligator is a formidable animal on account of its great size and strength. They swim with greater speed than one would imagine possible from their bulky appearance, being propelled swiftly along by their powerful tails. On land they are slow, owing to their extremely short legs and their weight.

The first outboard motor boat on the Magdalena River, Colombia

ADVERTISING PAGES REMOVED

Papya trees line the banks of the Barranquilla Canal

A village washer-woman with Phil in the background

They grow to a length of about fifteen feet, sometimes attaining eighteen feet. The alligator or Caiman, on the lower Magdalena is nearly extinct, because of the fact that it is hunted for its hide. The hides bring a small price in the markets at Barranquilla. Further up the river there are still a great many, but these are disposed to retire upon the approach of man. But in sections where they are seldom or never hunted they have been known to show a ferocity of alarming character, attacking people in boats, rearing their heads from the water, and snapping their huge jaws in a threatening manner.

Now and then we saw a kind of blue heron, a peculiar long legged water fowl which is said to be a distinct specie to be found nowhere else. The river also appeared to be full of fish that jumped up all around us but did not take the bait we optimistically extended to them.

The river began to narrow a bit, and the jungle was green and dense alongside. But even so, villages were frequent. Native champans plied their way upward carrying on the commerce of the villages. Whole villages of natives swam in the river, seemingly unafraid of the alligators that might be close. Two natives watched us with curious eyes as we passed them where they toiled, poling their boat. They were naked. Both magnificent specimens with rippling muscles and brown brawny backs.

On noticing some queer little water animals resembling a small alligator we queried the natives who followed watching us from the shore.

"Caiman," they answered in shrill voices. But I later found that they were not alligators at all but an odd little animal which is the chicken of the native, and considered a very tasty dish.

A kind of vulture or buzzard seemed to infest every village. They were black, grotesque and evil appearing birds, with sharp beaks and cruel beady eyes, and were hooded like the condor whose habitat is the high peaks of the Andes. These vultures are much smaller than the condor. The natives call them "chewlew."

One evening, after we had been several days on the river, sleeping in the jungle along the bank, or, when lucky, in a dirty native village, we saw the faint outline of a low range of mountains at which point the Magdalena turns toward the east. Phil thought he could see adobe houses along the bank of the river, and thinking it might be a village of some size where we might be able to buy a little food other than cocoanuts and plantains (upon which we had lived mostly since our departure by boat), we put on all speed ahead for our destination. But we were not to reach our objective that night.

In the tropics night (*Continued on page* 228)

LOOKING INSIDE THE OUTBOARD ENGINE

Refinements in the Construction of the Two Cycle Outboard Engine Which Make Possible the High Power Output Per Cubic Inch of Cylinder Volume

By P. A. TANNER, M.E.

Part III

NOT only the popularity and the utility of the outboard motor, but its very existence depends on its delivering great power for its size and weight. It is logical, therefore, that engineering development should have been along the line of procuring more usable horse power from each cubic inch of piston displacement. All engineering is a process of compromise and it becomes necessary for the engineer to carefully weigh the advantages gained by a specific construction against the additional weight, cost, and complication. Some constructions—such as the supercharger on four cycle motors—are justified only for the accomplishment of some specific much desired result such, for example, as winning a race. Yet, the developments which today may seem impractical for general use, may tomorrow be applied in principle to great advantage to the commercial product.

The rotary valve was first applied to outboard motors to increase power and was no doubt justified from that standpoint alone. But today the engineer would probably be justified in applying it if for no reason other than to make the motor more quiet in operation since that is now a much desired feature.

Figues 5 and 6 in Part I, illustrate a simple engine with an automatic intake valve to the crank case and it has been explained that this type of valve, while long in use, does not permit of high Volumetric Efficiency—complete filling—of the crank case. Figures 7 and 7a illustrate the Third Port intake arrangement. This is an improvement for high speed operation and permits increased power for two reasons; first, because it gets a larger charge into the crank case; second, because it permits higher speeds. Yet, the third port is not an ideal arrangement for several reasons.

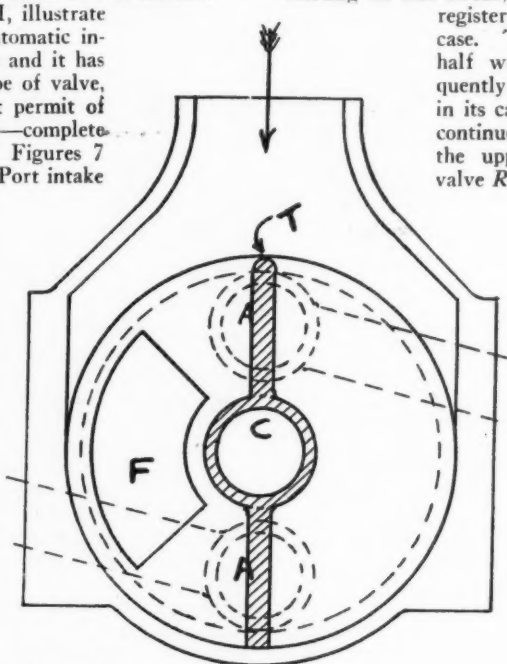
And so engineers set about refining the two-port motor by providing even better valving to the crank case. This has resulted in the Rotary Valve in several forms.

Figures 13 and 13a illustrate diagrammatically one form of gear-driven rotary valve. Figure 13 is a section through such a motor looking down upon it. It is the twin cylinder opposed type with a single common crank case; the crank shaft *E*, the cylinders, *C, C*, the pistons *A, A*, the connecting rods, *B, B*, and the rotary valve providing for entrance to the charge to the crank case along the path shown by the arrows *I* and *F*. Keyed to the crank case next to the upper main bearing, is the gear *D* driving another gear of the same diameter *D2* which is fastened to the shaft *S* of the rotary valve *R*. The gears are indicated by the dot-and-dash circles. Since the gears are of the same diameter, the rotary valve runs at exactly the same speed as the crank shaft. The rotary valve barrel is mounted on the shaft *S* which is carried by the two ball bearings *N, N*, as shown in Figure 13a, which is a sectional side vew of the valve and its casing. The new charge travels through the valve as shown by the long arrow *I-F*.

As shown, the pistons are moving outward—on the compression stroke in the cylinders, on the suction stroke for the crank case. Just as the pistons were starting on this stroke, the turning valve *R* began to register its openings with those in its case. The drawing shows the pistons half way out on the stroke, consequently the openings in the valve and in its case just match. As the pistons continue outward, and as they reach the upper dead center, the turning valve *R* will have just about closed the openings at *I* and *F* and the crank case will soon be sealed to remain so during the compression stroke.

In practice the valve does not begin to open at exactly lower dead center nor close completely at upper dead center. In fact, it opens a little later and closes a little later than this to take advantage of the velocity of the moving column of air through it.

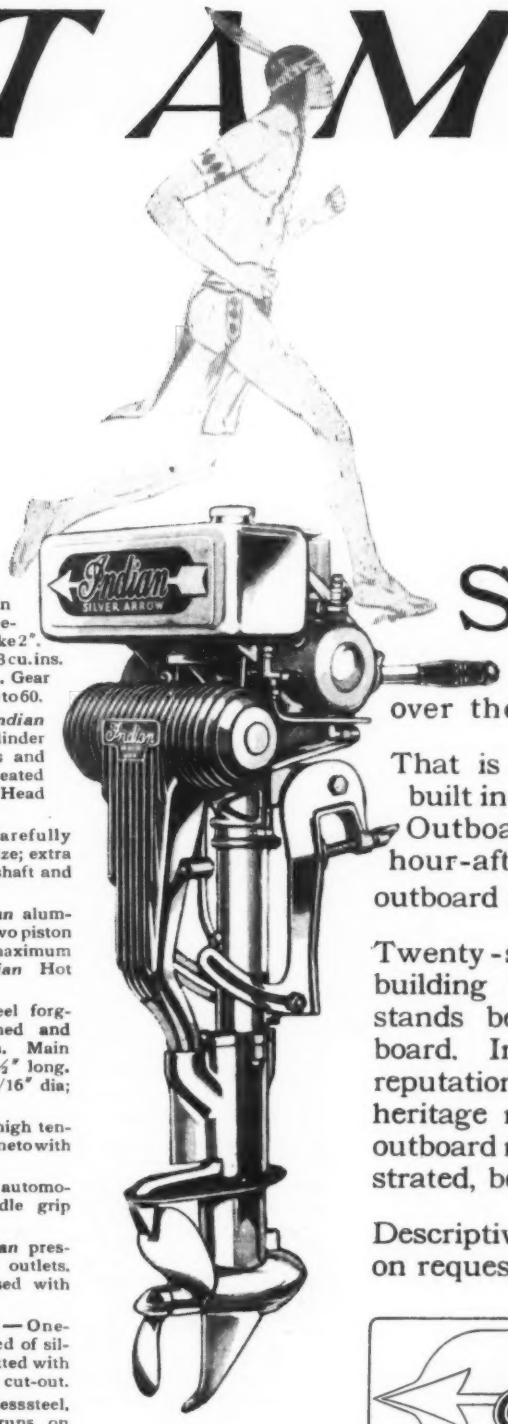
Since the valve must seal the crank case against loss of the compressed charge when it is in the closed position, it is obvious that the fit of the valve inside



Another form of valve used in four-cylinder engines. Figure eleven in Part II showed the horizontal view of this

Fig. 14

STAMINA



SPECIFICATIONS

Motor—High speed twin cylinder, two-stroke, three-port type. Bore 2½", stroke 2". Piston displacement 19.63 cu. ins. Motor speed 4500 R.P.M. Gear reduction to propeller 100 to 60.

Cylinders—Exclusive *Indian* Silver Arrow cast iron cylinder sleeves. Cylinder heads and water jackets of heat treated aluminum alloy. Hot Head Motor design.

Connecting Rods—Carefully balanced phosphor bronze; extra large bearings on crankshaft and piston wrist pin.

Pistons—Special *Indian* aluminum alloy fitted with two piston rings, designed for maximum performance with *Indian* Hot Head cylinder.

Crankshaft—Nickel steel forging, balanced. Hardened and ground to mirror finish. Main bearings 15/16" dia.; 2½" long. Crankshaft bearings, 15/16" dia; 1 3/16" long.

Ignition—Waterproof high tension Bosch flywheel magneto with cut-out button.

Carburetor—Tillotson automobile type; *Indian* handle grip control.

Cooling System—*Indian* pressure type with visible outlets. No pump or valves used with this system.

Underwater Exhaust—One-piece silencer constructed of silicon aluminum alloy. Fitted with heat dissipating fins and cut-out.

Propeller Shaft—Stainlesssteel, heat treated, ground; runs on bronze and ball bearings.

Gears—Heat treated alloy steel. Pinions, twelve teeth; gears, twenty teeth.

Price $185.00

F. O. B. Springfield, Mass.

SOME of our native Indians could run unbelievable distances. Mile after mile for hours at a time they sped over the country.

That is the sort of stamina we have built into the New Indian Silver Arrow Outboard . . . the sort of persistent hour-after-hour performance that the outboard enthusiast demands.

Twenty-seven years of experience in building motors for Indian Motocycles stands behind the Silver Arrow Outboard. Indian Motocycles have a world reputation for endurance . . . a splendid heritage now shared by this great new outboard motor. See it . . . have it demonstrated, before you buy any motor.

Descriptive literature and dealers' names on request. Service stations everywhere.

Indian
SILVER ARROW

OUTBOARD MOTOR

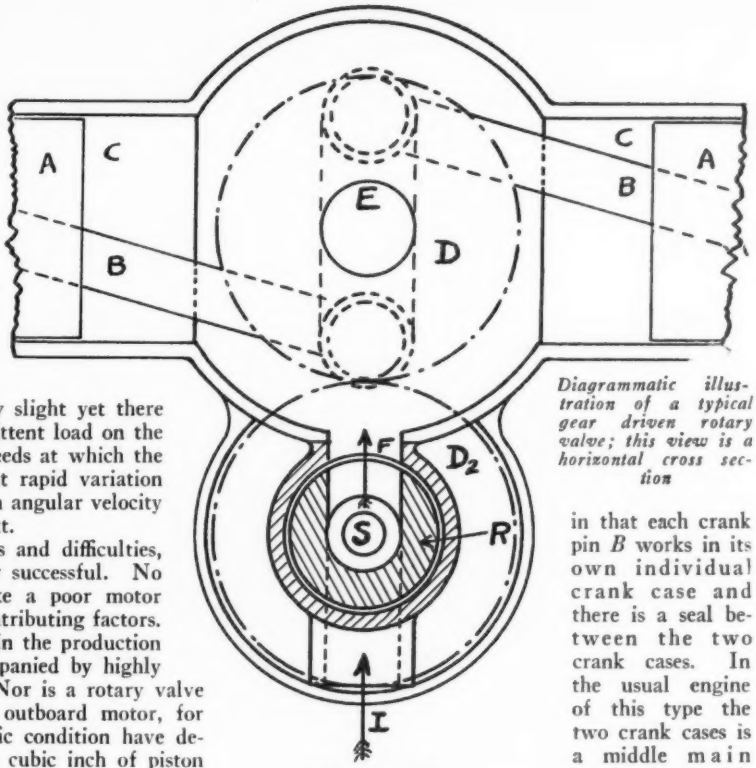
INDIAN MOTOCYCLE CO. Dept. M SPRINGFIELD, MASS.

its casing must be very close. Still, it must not actually touch the casing as this would cause wear, friction, and heat. A thin oil film between the valve and the casing help to seal it. Every dimension must be accurately machined to very close limits and the shaft *S* must be stiff to prevent distortion at high speeds. Since the metal in the valve is not uniformly disposed around the shaft at any one point, the valve is not in dynamic balance and tends to wobble at high speeds. The power required to drive the valve is very slight yet there seems to be a rather high intermittent load on the gear teeth caused by the high speeds at which the teeth mesh and by the slight but rapid variation in crank shaft speed—variation in angular velocity —from one explosion to the next.

In spite of these disadvantages and difficulties, this type of valve has been very successful. No rotary valve, however, can make a poor motor good—it is just one of several contributing factors. In order to properly do its part in the production of high power it must be accompanied by highly efficient design in other parts. Nor is a rotary valve necessary to high power in the outboard motor, for three-port motors under a specific condition have developed just as much power per cubic inch of piston displacement.

Perhaps a more efficient valve of this type is one which is driven at half crank shaft speed. In that case, the intake *I* is directly in line with *F* so that the air is drawn straight through and does not have to make the double curve as shown in Figure 13a.

Figure 10, in Part II, shows another type of rotary valve used in a two cylinder motor with the cylinders side by side and firing alternately. This motor is, in effect, two single cylinder motors laid closely together



Diagrammatic illustration of a typical gear driven rotary valve; this view is a horizontal cross section

Fig. 13

in that each crank pin *B* works in its own individual crank case and there is a seal between the two crank cases. In the usual engine of this type the two crank cases is a middle main bearing but in this case this bearing has been increased in diameter until it is as large as the outside of the crank shaft cheeks. The main bearings *A, A.* support the crank shaft and the large middle cheek fits closely in the surrounding crank case but does not quite touch. Drilled into this large center cheek *C* is a passage *D* leading from the passage *I* to which the carbureter is attached. Another similar passage is drilled on the opposite side leading to the lower crank case. When the piston in the upper cylinder is on the compression stroke in the cylinder, which is the suction stroke in the crank case, this passage *D* registers with the passage *I* in the crank case and the new mixture is drawn into the upper crank case as indicated by the arrows. When the lower piston is on the suction stroke, the passage *D2* registers with *I* and the charge is drawn into the lower crank case.

This construction of valve has the advantage that the gas flow is rather direct, only one bend, and the crank case clearance volume is rather small giving a good pumping efficiency. It, again, however, requires very close machining limits since the middle cheek *C* must fit quite closely in the crank case without touching. When there is pressure in the upper crank case there is suction in the lower. This total pressure on the crank shaft of a motor having a 2 inch stroke might run as high as fifty pounds, tending to alternately raise and lower the crank shaft. The alternation of pressure is so rapid in a motor running at 4,000 revolutions per minute that it is not likely that any actual movement of the crank shaft up and down would occur. The crank shaft in this type of motor is heavy, however, as well as costly.

In Figures 11 and 14 is shown another type of rotary valve this time applied to a four cylinder motor. In this construction the flat surface of one or more of the crank shaft

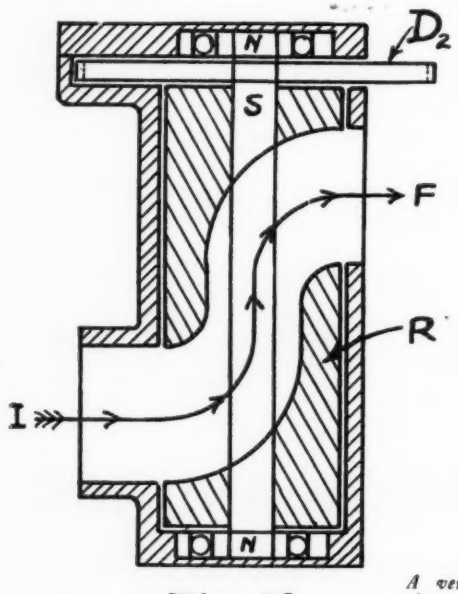


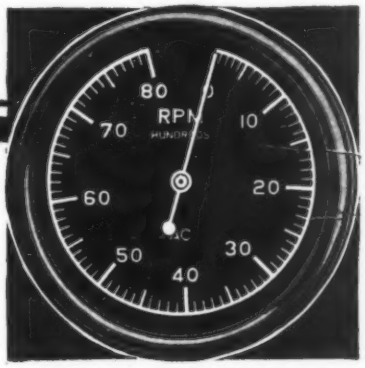
Fig. 13a

A vertical section through the same rotary valve illustrated above

A NEW AND IMPROVED AC Tachometer

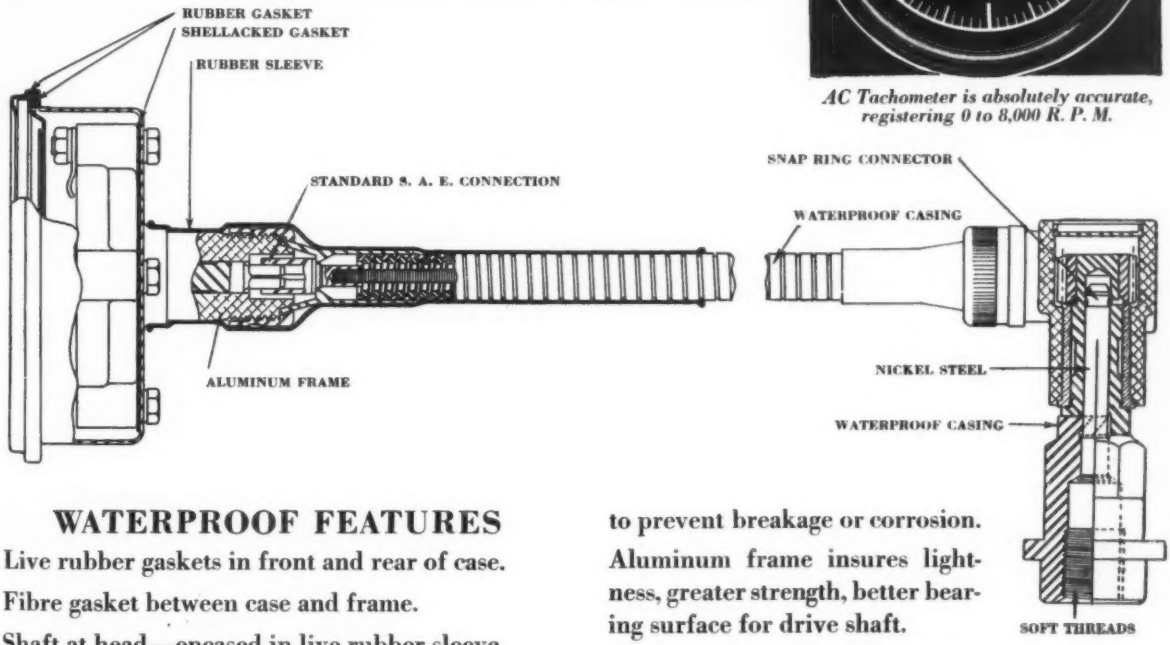
For outboard engines

At a New Low Price $20



AC Tachometer is absolutely accurate, registering 0 to 8,000 R. P. M.

Features which insure continued accuracy and serviceability are embodied in the AC Tachometer for Outboard engines. Note details of mechanism illustrated in sketch below.



WATERPROOF FEATURES

Live rubber gaskets in front and rear of case.

Fibre gasket between case and frame.

Shaft at head—encased in live rubber sleeve.

Shaft protected by waterproof casing.

MECHANICAL FEATURES

Snap ring prevents drive adapter from jumping off drive pin in rough water.

Standard S. A. E. connection.

Nickel steel pilot pin and hardened drive nut jaws, to prevent breakage or corrosion.

Aluminum frame insures lightness, greater strength, better bearing surface for drive shaft.

Soft threads in drive nut prevent damage to threads on flywheel shaft.

This new and improved Tachometer is now priced at $20.00 complete (slightly higher in Canada). If your engine dealer is not yet supplied, write us for descriptive folder, giving the name and address of dealer.

AC-SPHINX
Birmingham
ENGLAND

AC Spark Plug Company
FLINT, *Michigan*

AC-TITAN
Clichy (Seine)
FRANCE

© 1930, AC Spark Plug Co.

AC INSTRUMENT PANELS AC TACHOMETERS AC THERMO GAUGES AC AMMETERS
AC OIL PRESSURE GAUGES AC AIR PRESSURE GAUGES AC OIL FILTERS

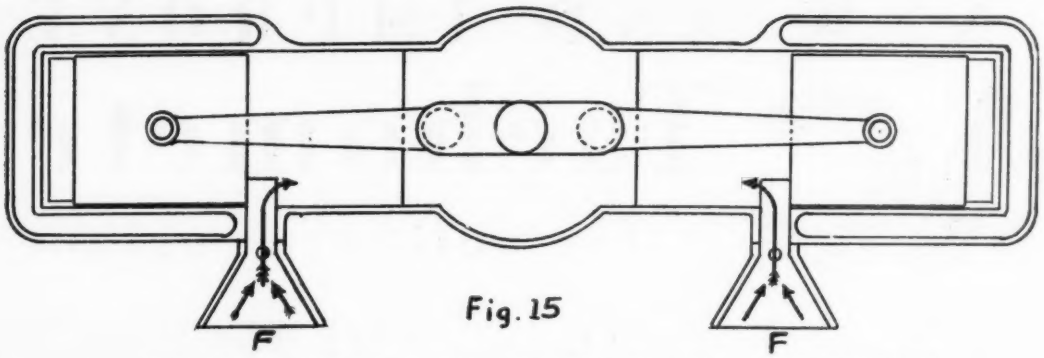


Fig. 15

Two carbureters applied to an engine help in filling the crankcase more completely and increase the power

cheeks is used as a valve. One cheek of a single cylinder crank shaft or of a twin opposed shaft could be used in exactly the same way, in fact many years ago a small air cooled portable engine was thus constructed.

In the four cylinder two cycle outboard motor are two crank cases, one for each opposed pair of cylinders. In Figure 11 the pistons in the upper cylinders are half way up on the crank case suction stroke, while the lower two pistons are half way down on the crank case compression stroke. In the ordinary two-port or three-port type of construction the seal between the two crank cases is a center bearing. In the construction shown, there are three main bearings, *C, C, C,* the middle one consisting of a bronze casting, shown in section, fitting snugly into the crank case and fitting around the center journal of the crank case. There is an annular space *B* inside this casting and this connects with the opening to the carbureter. The arrow in Figure 14, which is a cross section, looking down, at the line *M, M,* Figure 11 shows the direction of flow of the mixture from the carburetor into this annular space. The bridge or wall, *T,* divides the annular space *B,* to more evenly direct the charge, first to one crank case, then the other. Cut into the lower part of this double disk is an opening shown at *F.* A similar opening is cut into the circular crank shaft cheek. These two match when the pistons create suction in the crank case and the mixture flows through the opening into the crank case as shown by the arrow *F* in Figure 11. When the upper crank case is on suction a similar pair of openings register into the upper crank case and the mixture is drawn into that.

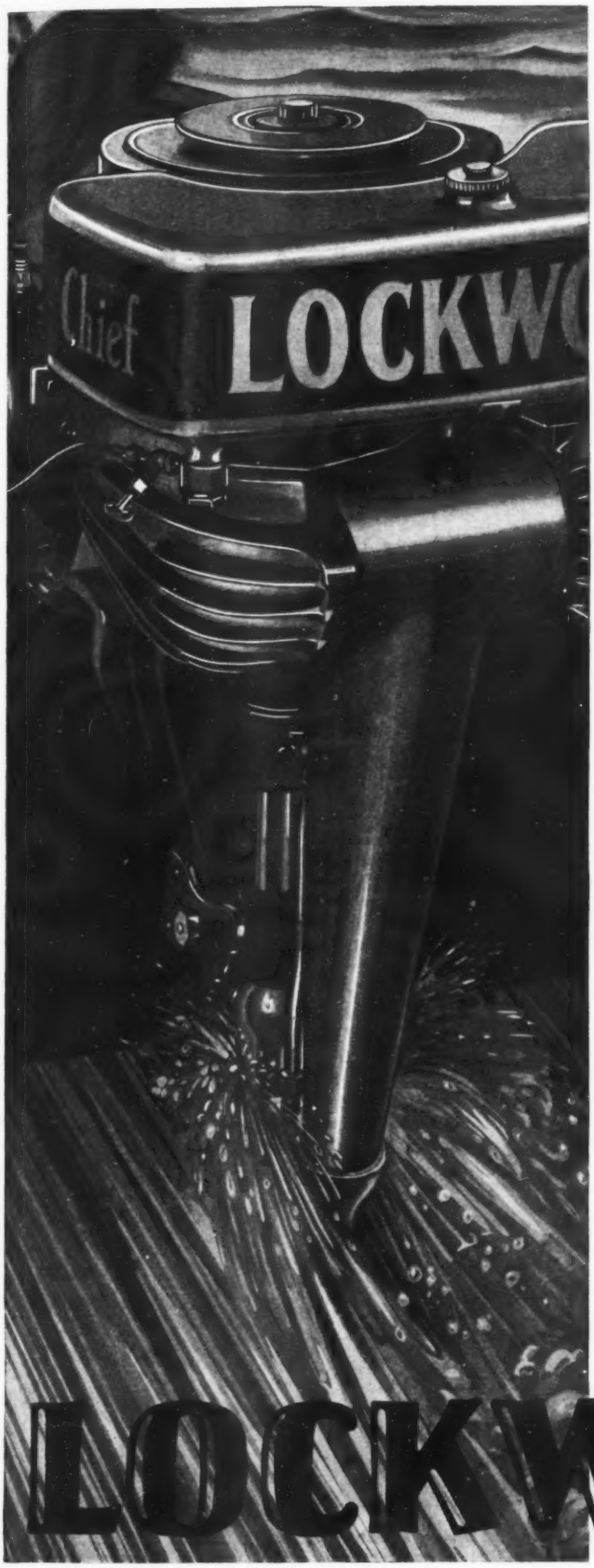
The valving action is thus between two flat surfaces always in contact, or nearly so, and lubricated by the oil which is drawn in with the mixture of gas and air. This construction permits rather direct flow of the mixture to the two crank cases, and since the opening *F* may be rather large and the annular space *B* may also be ample, rather good crank case filling is accomplished. As in other types of rotary valves however, parts must be machined to very close limits, fits must be nearly perfect, else leakage will occur or friction will develop undue heat and wear. There are still some other slight disadvantages in this construction, as in every type, but on the whole there is no reason why this valve should not be entirely successful with the details properly worked out. It is very quiet since there are no gears and the suction on the carbureter is almost continuous rather than a series of pops as in the three-port type of motor.

Another successful attempt to improve crank case filling and increase power is in the use of two carbureters as indicated in Figure 15. When a single carbureter is used on this type of motor an intake manifold leading to both third-port openings is necessary. Not only is there friction in the manifold due to its length, but there are at least two extra bends to be traversed by the in-going mixture. By using two carbureters the mixture is permitted to shoot directly in through the ports filling the space below the pistons and the crank case with minimum effort. There are two distinct disadvantages in this construction. First, it is quite difficult to adjust both carbureters so that each provides the correct mixture at all speeds. One may be lean—too little gasoline—the other too rich—too much gasoline—and the average being about right, the motor will run well at some one speed. The usual method of adjustment is to shut off one carbureter and adjust the other, then reverse. The second disadvantage is the blow-back of mixture from the carbureters. While bends in the intake cut down efficiency, they do catch the rebounding particles of fuel and oil and hold them until they are drawn into the motor on the next stroke. When a three-port motor operates at anything less than maximum speed there is a tendency for the mixture to be blown back out through the carbureter at the end of the suction stroke and the beginning of the compression stroke. With the two short intake passages as shown there is nothing to catch this and as a result, when the motor is operating at slower speeds, fuel and oil in annoying quantities are deposited in the boat and on the operator.

Two methods of carbureter control have been successfully used. Some prefer to so interconnect the throttles on the two carbureters that one opens before the other. Thus, in starting, but one carbureter is opened. The motor is operated on the one until maximum speed is desired when the controls then open the other carbureter. Some have mistakenly assumed that each carbureter supplies mixture to its respective cylinder but this is not the case since both connect to the common crank case which discharges the mixture to both cylinders at the same time whether that mixture was obtained from one carbureter or both. The other method is to connect the controls so that both carbureters open and close together. The first method is perhaps the most logical since it permits separate adjustment of the carbureters and since it maintains higher mixture velocity, through the one carbureter, at less than maximum speed. In either case the operator must be skillful in the handling of his controls as an attempt to open both carbureters wide before the motor is up to speed may so lower the mixture velocity that the gasoline is not picked up and carried into the motor.

There are, of course, other ways of valving the crank case to get better filling. There are other types of

(Continued on page 234)



PACKED with power — offering advanced design and superb construction enhanced by numerous exclusive features that add greatly to dependability and operating ease—the Lockwood Ace and Chief give values unexcelled in the entire outboard field!

Easy to start! The Ace and Chief are equipped with powerful Eisemann magnetos. At moderate additional cost, the *Chief* offers perfected *12-volt* electric starting. The *Ace* is equipped with a new-type back-pressure relief that insures easy starting at its easiest.

Easy to Steer! Both the *Ace* and *Chief* are equipped with the famous Lockwood Pilot, "the unseen hand that takes hold when you let go." Your hands are free to rig a rod or light your pipe while the motor holds a steady course.

Swift! The Ace, weighing only 55 pounds, developing 7 horsepower, is the fastest, most powerful motor in its class. The *Chief*, 14 horsepower, meets every power requirement for large family boats, raceabouts and runabouts.

Quiet! The water sealed exhaust so successful on last year's *Chief* is now also standard on the *Ace*. Exhaust fumes and noises are buried under water *without loss of power.*

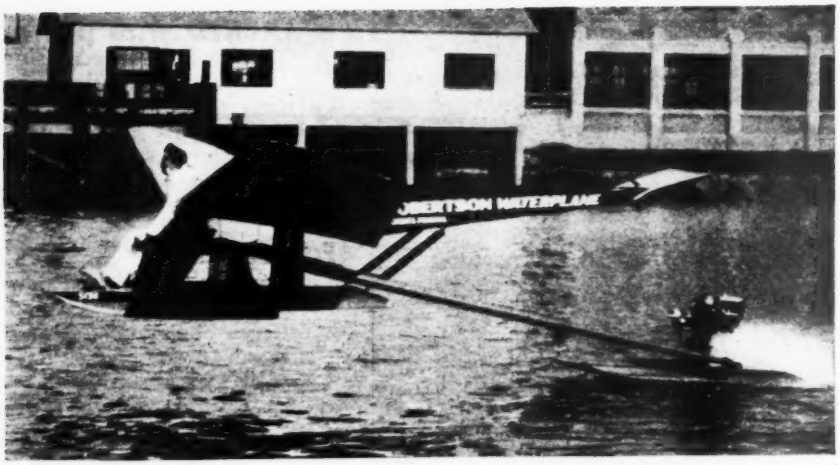
Long Lived! Costly materials, liberal oversizing, precision manufacture account in part for the extra years of trouble-free service delivered by every *Chief* and *Ace*. And vitally important is the *exclusive automatic lubricating system* to main and crank pin bearings, in addition to the lubricating system commonly used.

Know the full story on the 1930 Chief and Ace. Send for catalog!

LOCKWOOD DIVISON
Outboard Motors Corporation
Ole Evinrude, *President*
2622-27th Street Milwaukee, Wis.

OUTBOARD MOTORS CORPORATION

LOCKWOOD



Giving wings to the outboard motor. The Robertson Waterplane is a modern Pegasus, combining airplane and mechanical Seahorse

THE MONTH WITH THE OUTBOARDS

Items of Particular Interest to Followers of the Sport

FLYING OUTBOARDS

A DESIRE to keep a west coast ship yard busy during the seven idle months of the year has resulted in the invention of an unusual boating novelty.

It isn't a boat. It isn't an airplane. But it combines the thrill of both. Like Pegasus, the mythical animal which was a combination bird and horse, this contrivance is both airplane and mechanical sea horse. This latest water thriller, the invention of Russell and Milton Robertson of Alameda, Cal., is a waterplane.

Observation of outboard racing craft with their prows rearing out of the water as the powerful little motor at the stern pushed them up along the surface at high speeds gave them the idea. Why not put wings to the craft and lift it completely out of the water?

The Robertson brothers experimented. Their tests met with repeated failures. But after six months of experiment they built a craft that actually flew—that raised itself by its own wind resistance ten feet into the air—attached however to the outboard motor on pontoons at the water level.

This unusual boat novelty was built from two pontoons, one supporting the fuselage, the other carrying the outboard motor, a Sea Horse 32. Water and air craft design were combined.

The water plane is controlled similarly to an airplane. A joy stick operates the ailerons and elevators. A rudder for steering is under each pontoon and is operated by foot controls.

When the motor is started the plane travels about 25 feet before attaining planing speed, and in a hundred feet more the forward pontoon lifts out of the water. The thrill of zooming from the water at a sustained speed of forty to fifty miles an hour marks a new annal in boating, according to those who have piloted the plane.

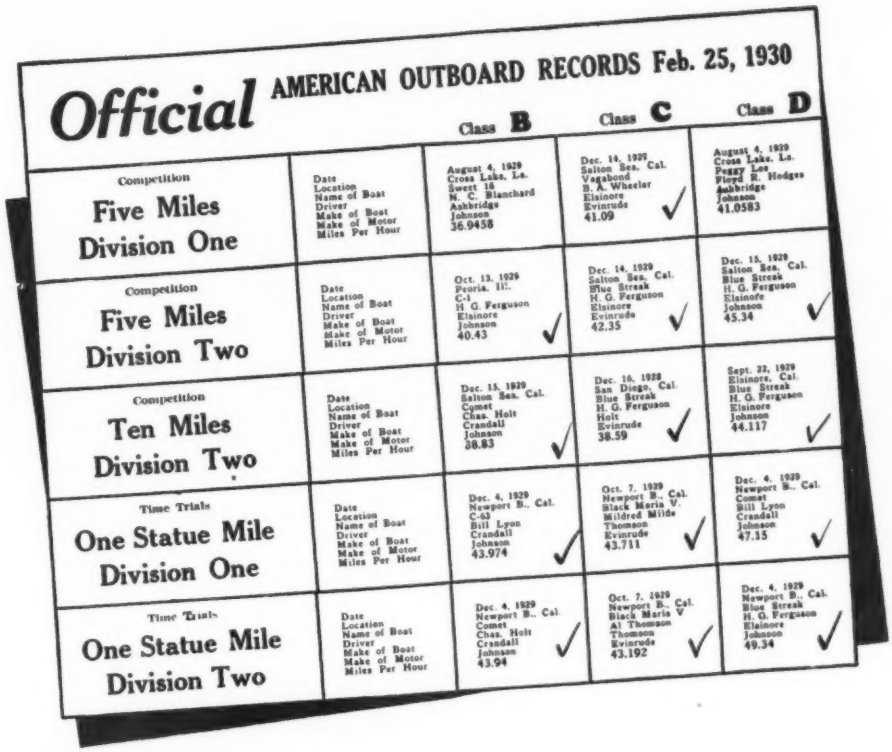
Experimentation on the plane is still going forward and production probably will not be started for several months, Milton Robertson said.

NEW TYPE OF BOAT UNDER CONSTRUCTION

J. T. Milliken of St. Louis, Missouri, millionaire sportsman and Evinrude distributor, is experimenting with a new type of outboard craft in Florida waters, with which he hopes to be able to set new speed records for outboards. Mr. Milliken heads a racing team made up of St. Louis racing drivers, and has already won second place victories in the National

(*Continued on page 220*)

R. M. Watson, New Zealand's outstanding racing driver, has won the South Island championship twice with his Johnson Sea Horse 16



Official AMERICAN OUTBOARD RECORDS Feb. 25, 1930

		Class B	Class C	Class D
Competition **Five Miles** **Division One**	Date Location Name of Boat Driver Make of Boat Make of Motor Miles Per Hour	August 4, 1929 Cross Lake, La. Sweet 16 N. C. Blanchard Ashbridge Johnson 36.9458	Dec. 14, 1929 Salton Sea, Cal. Vagabond B. A. Wheeler Elsinore Evinrude 41.09 ✓	August 4, 1929 Cross Lake, La. Peggy Lee Floyd R. Hodges Ashbridge Johnson 41.0583
Competition **Five Miles** **Division Two**	Date Location Name of Boat Driver Make of Boat Make of Motor Miles Per Hour	Oct. 13, 1929 Peoria, Ill. C-1 H. G. Ferguson Elsinore Johnson 40.43 ✓	Dec. 14, 1929 Salton Sea, Cal. Blue Streak H. G. Ferguson Elsinore Evinrude 42.35 ✓	Dec. 15, 1929 Salton Sea, Cal. Blue Streak H. G. Ferguson Elsinore Johnson 45.34 ✓
Competition **Ten Miles** **Division Two**	Date Location Name of Boat Driver Make of Boat Make of Motor Miles Per Hour	Dec. 15, 1929 Salton Sea, Cal. Comet Chas. Holt Crandall Johnson 38.83 ✓	Dec. 10, 1928 San Diego, Cal. Blue Streak H. G. Ferguson Holt Evinrude 38.59 ✓	Sept. 22, 1929 Elsinore, Cal. Blue Streak H. G. Ferguson Elsinore Johnson 44.117 ✓
Time Trials **One Statue Mile** **Division One**	Date Location Name of Boat Driver Make of Boat Make of Motor Miles Per Hour	Dec. 4, 1929 Newport B., Cal. C-53 Bill Lyon Crandall Johnson 43.974 ✓	Oct. 7, 1929 Newport B., Cal. Black Maria V. Mildred Milde Thomson Evinrude 43.711 ✓	Dec. 4, 1929 Newport B., Cal. Comet Bill Lyon Crandall Johnson 47.15 ✓
Time Trials **One Statue Mile** **Division Two**	Date Location Name of Boat Driver Make of Boat Make of Motor Miles Per Hour	Dec. 4, 1929 Newport B., Cal. Comet Chas. Holt Crandall Johnson 43.94 ✓	Oct. 7, 1929 Newport B., Cal. Black Maria V Al Thomson Thomson Evinrude 43.192 ✓	Dec. 4, 1929 Newport B., Cal. Blue Streak H. G. Ferguson Elsinore Johnson 49.34 ✓

13 out of 15 major American Outboard Records

and 3 World's Records Won with Mobiloil

Let Mobiloil performance speak for itself! 13 out of 15 official American records in the three major outboard classes—B, C and D! And *world* records? Mobiloil again in all three classes:

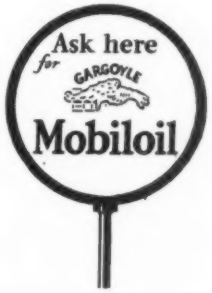
CLASS B—35.9 m.p.h.—set by Billy Lyon in his Johnson-powered "Baby Brontosaurus."

CLASS C—37.0 m.p.h.—made by Al Thomson in "Black Maria V" —Evinrude engine.

CLASS D—41.5 m.p.h.—another H. G. Ferguson feat in his famous "Blue Streak," powered with a Johnson 32.

Ask for Mobiloil—*specially made* to help a motor give all that's in it. Lasts longer . . . and keeps good engines from growing old before their time. Sold in every state in the Union.

LOOK FOR THIS SIGN



VACUUM OIL COMPANY

Makers of high-quality lubricants for all types of machinery

Mobiloil

THE MONTH WITH THE OUTBOARDS

(*Continued from page 218*)

J. T. Milliken, St. Louis Evinrude distributor, and his racing team with some new hulls they are trying out in Florida

Championship Race held last October at Peoria, Illinois, as well as being the holder of the fastest average speed for the state of Iowa, 40.97 miles per hour. The second member of the racing team sponsored by Mr. Milliken, is Dick Upsall, of Chicago, well known outboard driver, and holder of many speed records. Walker Pate is the third member of the Florida outboard team, who, with his Evinrude Speeditwin, recently annexed the outboard Class C Championship of Florida, establishing his record at Mt. Dora, Florida, on January 1. The fourth member of the team is George Knight, skilled mechanic and the man who makes the motors go. Mr. Knight is a driver of note as well as an excellent mechanic having taken second place in the 1750-mile race from the Great Lakes to New Orleans, and has as well many other victories to his credit.

This famous team of race drivers has been in Florida since the early part of the winter, making time trials on the lakes and testing out various types of outboard hulls.

At the present time they are busily engaged in a Florida lumber mill, constructing four new types of hulls, radically new in design. The object in their construction is to furnish a rough water hull that will be practically swamp-proof but which will not sacrifice any of its speed. Mr. Milliken is not divulging any of the details of this construction, but as stated, he expects phenomenal speed from his new type of craft.

AN OUTBOARD-POWERED HOUSEBOAT

Mary Lee, spacious houseboat of L. Hufschmidt, Lansing, Iowa, is a leviathan of the Middle West river country, propelled by an outboard motor, a Johnson 32.

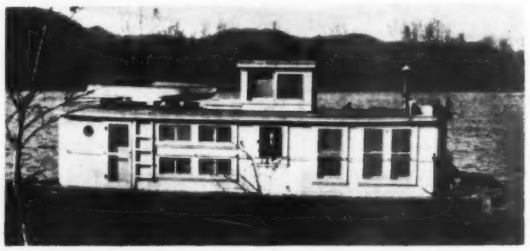
The hull of this river craft measures 32 feet, and although it accommodates six persons comfortably, it rides easily over eleven inches of water.

A separate compartment houses the motor, which can be tilted up when not in use, and a hatch door slid underneath. This separate compartment prevents gas from entering the cabin of the boat. The motor is controlled from the pilot house.

The craft achieves a speed of about five miles an hour, and this can be increased about two miles an hour by the addition of smaller Sea Horses clamped on the outside. Mr. Hufschmidt is considering the addition of tw small motors this season as well as an electric starter for the large motor.

NEW PLANT AT PENN YAN

The view accompanying this article illustrates Plant No. 1 of the Penn Yan Boat Company at Penn Yan, New York. It has just been completed and is now in full production



Heavy work for an outboard motor. This 32-foot Iowa river houseboat makes 5 m.p.h. with a Johnson 32

swing. The rapid growth to popularity that boating has enjoyed during the past few years, can be emphatically shown by consideration of the comparable growth that the Penn Yan Boat Company has had and the extensive production facilities now controlled by that organization.

This Plant No. 1, of the Penn Yan organization, which was erected this past winter in approximately fifty working days, immediately adds to their previous large facilities six manufacturing bays each 300 feet long and 36 feet wide, exclusive of tremendous shipping and storage facilities. Plant No. 1 is used for the manufacture of runabouts and larger type outboard boats and is also the executive and engineering headquarters of the organization. To this plant 750 feet of side track, on the New York Central Railroad, is available on Penn Yan Boat Company's private land for loading of cars and this makes it possible to comfortably load ten carloads of boats a day at this one plant alone.

Otis Stubbs, Savannah distributor for Johnson boats and engines, takes his business with him on a trailer when he travels

(*Continued on page 222*)

Better Performance

Gives CHAMPION *Every*

1929 National Outboard Championship

DOUGLAS HASKINS
Champion Class A

H. G FERGUSON
Champion Class B

CARL KOEFFLER
Champion Class C

DICK UPSALL
Champion Class D

F. E. LUDOLPH
Champion Class E

BETTER performance on the water caused every National Outboard Champion for 1929 to use Champion Spark Plugs in his engine. In the five championship events three new world outboard records were made.

It is unanimously conceded that today's outboard racing engines present as difficult operating conditions for spark plugs as it is conceivable to impose. The constant use of wide open throttle, up to 6000 revolutions per minute, coupled with 6 and 7 to 1 compression ratios, all conspire to defeat the proper functioning of spark plugs.

It is significant that the winner in each of these five National Outboard Championship Events at Peoria, Ill., Oct. 12-13, selected and used Champion Spark Plugs, and that Champions were the *only* item of equipment universally used. They performed in championship style in five different types of hulls, four different types of engines, using three different kinds of gasoline and three different oils.

This remarkable demonstration of Champion Spark Plugs parallels the innumerable racing and record achievements attained with Champions in every realm of motorized transportation the world over.

Champion performance is *unequaled*—on land, water and in the air, in *every* type of engine.

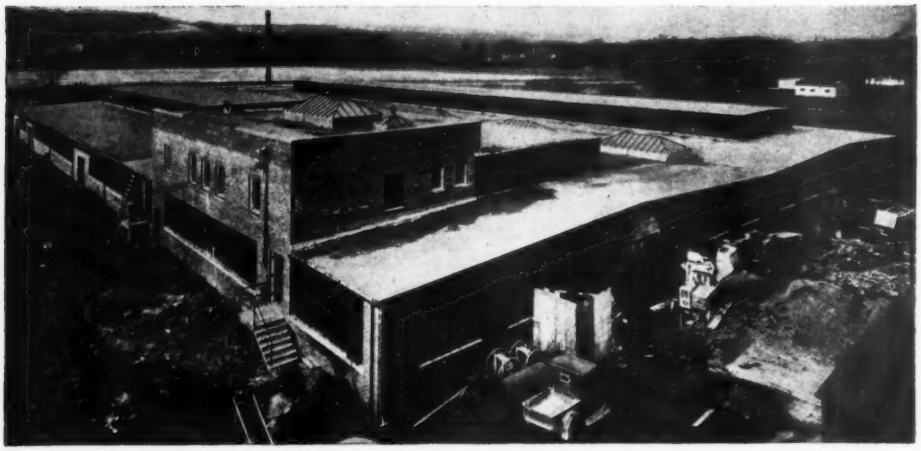
CHAMPION

Spark • Plugs

TOLEDO, OHIO WINDSOR, ONTARIO

THE MONTH WITH THE OUTBOARDS

(*Continued from page* 220)



The recently constructed new Plant No. 1 of the Penn Yan Boat Company, devoted to the manufacture of runabouts and the larger outboards

Plant No. 2, also located at Penn Yan, is devoted to the manufacture of race boats, dinghies, etc. This is a two-story factory and until the erection of Plant No. 1, was considered as one of the largest and most modern boat factories.

Plant No. 3, also in Penn Yan, is a four-story factory in which the upper three stories are usually used for storage and the lower floor for manufacture of small boats during the rush season.

This gives to the Penn Yan Boat Company a total manufacturing and storage space approaching three quarters of a million square feet in area. The normal capacity of the three plants working just one shift a day gives a production of 13,000 boats a year. This production rate is increased in rush seasons by working an extra shift. For instance, one extra shift a day in Plant No. 1, in itself adds a production of 625 boats a month.

There are now employed in these plants about 350 men and during the rush season the weekly payroll approximates $15,000. These figures quoted are concrete proof that the boat manufacturing industry has become of considerable size.

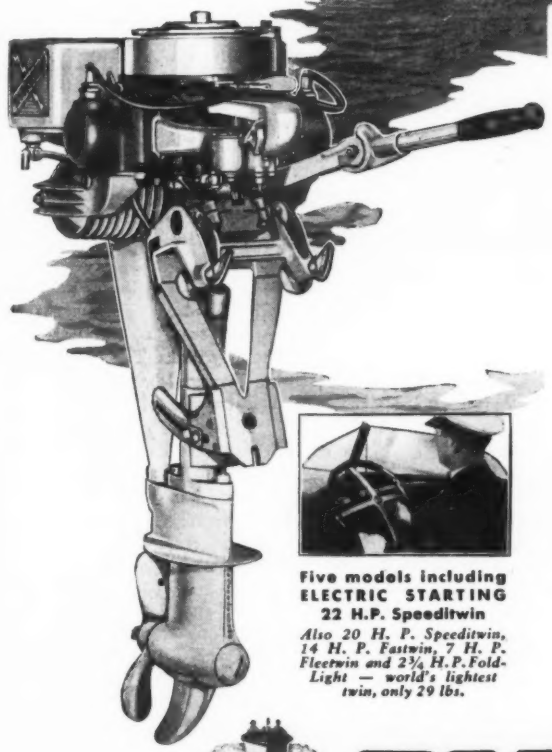
The mechanical equipment of these three factories typifies all that is most modern for economical and efficient manufacture of boats. The wood mills make use of the very latest machines so that operations which, heretofore, have been done by hand are in Penn Yan worked accurately and economically by machine. Separate booths are provided for lacquering the boats; other booths with special pressure spraying equipment have been developed for the application of the now famous Penn Yan Pyroxylin Process to the outer sheathing of the boat. In short, nothing has been spared to pass on to the ultimate user the most perfect boat possible, priced in accordance with a most efficient manufacturing system. (*Continued on page* 224)

E. Donald Dodge, Johnson dealer at Harwichport, Mass., has built his showroom along typically Cape Cod lines

An Elto Quad drives one of the new Mullins Flamingoes at a lively gait

Fastwin the Nine-hull Outboard

EVINRUDE BOAT SPEED GUIDE Speeds shown are based on one or two occupants. (*) indicates that motor is not adapted for hull.		Speed Range in Miles Per Hour				
		Speeditwin 22 H. P.	Speeditwin 20 H. P.	Fastwin	Fleetwin	Fold-Light
	Racing Hydroplanes, Stepped or Plain, 9 to 14 feet long	15-45	15-44	11-35	11-25	*
	Square Stern Canoes 16 to 20 feet long	*	*	10-20	10-18	8-11
	Pointed Stern Canoes 16 to 20 feet long	*	*	*	*	6-10
	Light Round or V-Bottom Boats, 12 to 18 feet long	15-28	15-25	9-20	9-16	6-10
	Heavy Round or V-Bottom Boats, 12 to 20 feet long	10-23	10-20	5-14	4-11	3-8
	Flat Bottom Boats 12 to 18 feet long	10-23	10-20	5-14	4-10	3-7
	Dinghies or Tenders 7 to 12 feet long	*	*	9-15	9-14	6-8
	Heavy Work Boats 10 to 20 feet long	6-16	6-15	5-12	*	*
	Runabouts 16 to 20 feet long	15-28	15-25	9-20	9-12	*
	Cruisers 16 to 22 feet long	6-22	6-20	6-12	*	*



Five models including ELECTRIC STARTING 22 H.P. Speeditwin

Also 20 H. P. Speeditwin, 14 H. P. Fastwin, 7 H. P. Fleetwin and 2¾ H.P. Fold-Light — world's lightest twin, only 29 lbs.

EVINRUDE Fastwin, 14 horsepower—*the nine-hull outboard!* Above are shown ten types of hulls, standard among boat builders the world over . . . . and Fastwin is adaptable to nine of the ten.

A utility outboard? *Yes!* Easy starting, underwater silenced and with chrome nickel steel crankshaft and oversize transmission gears. Good . . . . and good for years!

A speedy motor? *Very!* Five to 35 miles per hour is the range, with any speed in between at your fingers' tips with a flick of the throttle and a movement of the timer lever. And how Fastwin answers, when you say, "Go!" Through ball and roller bearings located on connecting rods, crankshaft and drive and propeller shafts, 14 horsepower flow with minimum friction as on racing cars and airplane motors.

A value? *Indeed!* Easy time payments if your wish, with only $50 down and six or eight months on the balance.

Write for new 32-page Evinrude Year Book. See all five Evinrude models described in detail and illustrations of racing and marathon victors with speeds attained.

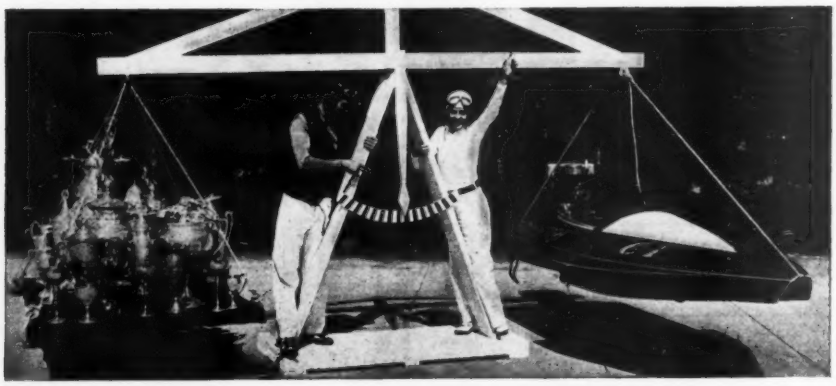
OUTBOARD MOTORS CORPORATION

EVINRUDE

EVINRUDE DIVISION, Outboard Motors Corporation
532-27th STREET MILWAUKEE, WIS.

THE MONTH WITH THE OUTBOARDS

(Continued from page 220)



H. G. Ferguson and Margaret Mullen find that the trophies won by Leo M. Baughman's Blue Streak outweigh both boat and motor

AN ATTRACTIVE SHOWROOM

Architectural conformity of his place of business to the neighboring summer residences has paid E. Donald Dodge, outboard motor dealer, in dollars and cents.

Mr. Dodge, who is the distributor for Johnson motors and boats, lives at Harwichport, Mass., where the Cape Cod style of architecture dominates the building residence trade. So in building his salesroom and service station on the shore of Allen Harbor, he retained the prevailing architectural tendencies of the neighboring structures.

The salesroom resembles a bungalow cottage and connects with a thirty-foot dock.

As a result of his thoughtfulness, Mr. Dodge has retained the good will of his neighbors, and enjoys a rapidly increasing business.

Malcolm Pope explains to Grover Alexander of the Phillies how the new electric-starting Elto Quad works

HERBST WITH MULLINS

Julius T. Herbst, well known boat designer and builder, has joined the organization of the Mullins Manufacturing Corporation.

To his new work he is bringing more than fifteen years experience in the design, manufacture and sale of boats and a wide acquaintance as one of the best known racers of inboard and outboard boats in the United States. The Mullins Corporation feel that Mr. Herbst will materially strengthen their Boat Division, especially in the designing and manufacturing end of the business.

A. T. Buffinton, whose affiliation with the Mullins Corporation was recently announced, has been made Field Manager of the North Eastern District.

MATCHING BOAT AND MOTOR

A new type motor boat has come cruising across 1930 waters to introduce new ideas in style, speed and ease of handling. It combines the advantages of both inboard and outboard motor boats. It has the free tilting propeller of the outboard boat to make even shallow waters navigable. It has the streamline effect of an inboard boat because the outboard motor is concealed in a covered hatch in the stern.

These boats, the Johnson Aquaflyers, have been introduced by the Johnson Motor Company, makers of Sea-Horse motors. They are built on a new principle of matching outboard motors with boats. The motor and boat are designed together—built together—thus effecting a vast improvement in speed and ease of handling. They steer, throttle and control by motor power, and are capable of high speeds for their size because their powerful motors are small and light and require no engine base.

The 20-foot Johnson Aquaflyer family runabout is of Philippine mahogany (Bataan) construction, round bilge bottom of bent ribs, has two upholstered cross seats, and a spacious floor for chairs. It does up to 22 miles per hour with the Sea-Horse 32.

The 17½-foot De Luxe Aquaflyer runabout is of the new Sealite construction. It is a V-bottom boat with 5-foot beam, has double cockpit arrangement, with two upholstered cross seats with lazy backs. The motor here is also in a covered hatch at the stern. With the Sea-Horse 16 it is capable of 19 miles per hour, and with the Sea-Horse 32 up to 25 miles per hour.

In addition to the Aquaflyer the Johnson line of matched units for 1930 include four other boats ranging from a 14-foot utility boat, weighing only 175 pounds, to a 17½-foot service runabout.

One of the innovations of this season has been the new type Sealite construction introduced by Johnson. Sealite construction has an inner and outer surface, one of solid wood and the other waterproof sheathing. The outer surface is fused inseparably to the inner one. It is waterproof, seamless and water-tight.

O. M. C. ANNOUNCES PRIZE CONTEST

Recognizing the increasing popularity of the outboard-equipped cruiser as a means of water transportation, the Outboard Motors Corporation of Milwaukee, Wisconsin, of which Ole Evinrude is president, has sought a means of bringing to a greater number of boat lovers information on the satisfaction and enjoyment to be obtained from the ownership of such a boat.

The conditions of the contest are simple, the most important consideration being that all stories must be based

(Continued on page 240)

ADVERTISING PAGES REMOVED

NEWNESS

Century

Traveler De Luxe $535.00

Traveler Jr. $395.00

Pictured here are the smartest outboard runabouts offered this season. Descriptive literature is ready for you, tell us where to send it.

E E D

SMART STURDY THAT'S CENTURY

The 1930 racing season is hardly started yet the Century Hurricane and Cyclone are already winning races and breaking records!

If you want pleasureful runabout speed and safety—or if you desire racing speed, the fleet of Century fast speed boats and smart Travelers will fill your fondest dreams. You will see these boats in action this summer—will you ride a Century and thrill to the performance that only Century can give?

You asked for it—the Century Scamp, a fifteen footer—ask about it.

See them in New York

And at Chicago at the National Motor Boat Show Starting April 25th

CENTURY BOATS

The name CENTURY is known all over the world by the surpassing excellence of its craftsmanship.

BOAT COMPANY

MANISTEE, MICHIGAN

Built in Canada

by

Peterborough Canoe Co.

Peterborough,

Ontario, Can.

See these Dealers in the U. S.

G. E. Steele,
Schenectady, N. Y.

Herschel G. Kabel,
Redwood, N. Y.

C. W. Crandell,
Worcester, Mass.

Alexander Masterton, Inc.,
Paterson, N. J.

Standard Electric, Inc.,
Newport, R. I.

J. Paul Delphey,
Frederick, Maryland.

E. A. Doty,
St. Petersburg, Fla.

Wilson & Richardson, Inc.,
Chicago, Ill.

W. L. Masters & Co.,
Chicago, Ill.

Von Lengerke & Antoine,
Chicago, Ill.

J. W. Boesch,
Peoria, Ill.

R. C. Heber,
Columbus, Ohio

R. W. Harrison Boat Works,
Toledo, Ohio.

Bay City Hardware Co.,
Bay City, Mich.

Vandervoort Hdwe. Co.,
Lansing, Mich.

Muskegon Boat Sales,
Muskegon, Mich.

F. Hollingsworth,
Wayland, Mich.

O. J. Donnelly,
Wheeler, Mich.

The Asher Motor Supply,
Spencer, Iowa.

McKinney & Lewis Motor Co.,
Osceola, Mo.

Sarah-Vanderventer-Service Station,
St. Louis, Mo.

Leonard C. Schulze,
Omaha, Neb.

S. Clyde Kyle,
San Francisco, Calif.

HOOTON

BUILDS THE STURDY OUTBOARDS YOU NEED

The modern outboard *must* be sturdy,—and its lines right.

The HOOTONS are famous for their thrilling performance, and will give you season after season of real boating satisfaction.

$220.00

NATIONAL CHAMPION—CLASS "E"

If you race to WIN drive a WILDCAT. It's got the speed and stability you need.

$280.00

The Thrilling
SAFETY-PLANE

A four-passenger step-runabout of great speed and safety. Does 30-45 m.p.h.

$380.00

The VEE-PLANE—for rough water

A gentlemen's fast runabout, de luxe equipped. Unequalled riding ease, seaworthiness, dryness.

$295.00

The roomy RESORTER—a beauty!

Full six-passenger family boat, for any motor, large or small. Speedy, wide, comfortable.

DEALERS: USERS: Write today for our sixteen-page booklet, and please mention your favorite model.

GORDON B. HOOTON

505 Grandville Avenue **Grand Rapids, Mich.**

OUTBOARDING ON THE MAGDALENA

(*Continued from page 211*)

comes with surprising swiftness. Thus it swooped down upon the river as we came to a large eddy. We received plenty of thrills before we could get our unwieldy craft righted. Ahead we could dimly make out the Magdalena rushing by a point of land. The current was extremely swift. We decided to land. I headed the nose of the boat for the shore, and we pulled it on to ground.

We were immediately surrounded by a jabbering and good natured crowd of Colombians who were very interested in our boat. They felt of it and made queer gestures, and talked very fast and excited in their odd Spanish. They were under the impression that the boat was made of paper.

One of the chief men of the village approached us, asking if we were *"Alemans."* Our experience so far had taught us that we would gain nothing by proclaiming that we were Americanos, so we neither denied nor affirmed our nationality.

We had no sooner downed our ration of plantain than the mosquitoes descended on us in great swarms. I noticed that the natives also slapped at them rather viciously. We had gone all day without water, our canteen contents having run out during the day. So we started our gas stove and boiled a fresh supply.

Sleeping in the tropics is a difficult feat. It is necessary to wrap mosquito netting around one's head, and still the mosquitoes walk right through. It is impossible to get a breath of fresh air during either night or day. The damp musty odor of rotting wood which is a part of the tropical atmosphere seemed to be unusually strong here. Neither did the barking dogs of the nearby village, nor the splashing of animals and fish in a nearby lagoon tend to bring sleep to us. The heat was the more oppressing because of the ink-like blackness of the tropical growth that lay back of us.

Suddenly, sometime during the night, we heard a faint rustling in the growth in back of us. Our guns had been confiscated by the Colombian government during the revolution there. The only thing we now possessed for protection was a small hatchet. Thus we took especial heed of rustlings. Phil arose quickly and grasped his flash light. He turned it directly in the area of the sound. The light fell upon two burly half dressed natives who were stealing slowly towards us. One carried a rope, and the other bore a long gleaming machete. With our light in their faces they turned abruptly and disappeared. Their cowardice was a relief. It got a bit cooler and I fell asleep. When I awoke it was growing light in the east. But the southern cross, that gorgeous and bright constellation of four stars which are famed in the tropics, still gleamed in the sky. . .

Light soon came, and we arose and poached our remaining four eggs. After eating, we packed our baggage into the boat. Several of the natives came down to watch us, marvelling that we had the courage to buck the raging current in what they supposed was a paper boat.

As we proceeded upstream the river became swifter, and we made slow progress. It seemed that we no sooner got out of one whirlpool which almost swallowed our little boat than we got into another one. At times the river became so bad that we were forced to go into the middle to escape the more dangerous whirls. But even there the current was so swift that we were lucky to make four miles per hour with all power.

Early in the morning we passed the adobe village we had sighted the night before. As the appearance of the village was not any better than those that had preceded it, we did not stop.

At about noon we decided to stop for lunch, so we headed the boat into a small lagoon which afforded protection against the swift current that swept along the high banks both above and directly below. We climbed upon the bank, and I handed Phil one of our cocoanuts which he broke upon a stone, drinking the juice.

Glancing along the bank I noticed a large alligator all posed for a plunge into the river. We had disturbed and frightened him when we landed. I moved, and immediately he plunged into the water with a splash that resounded loudly in the death-like stillness of the jungle.

"Whazzat?" inquired Phil, desisting from the cocoanut.

"Alligator," I answered.

"M-m-m, sounds more like an elephant to yours truly," he remarked, as he continued his attack on the white meat of the cocoanut.

That afternoon, after much difficulty, we finally arrived at a village, a little larger than any of the others we had seen since leaving Calamar. We ran our boat ashore, and walked through the village. As we made our way through the sandy street, surrounded by curious natives who all talked at once, we noted the squallid condition of the inhabitants. They appeared to live very much as did the wild hogs, mangy dogs and scrawny chickens which shared the adobe houses. The village was filled

(*Continued on page 230*)

Advertising index will be found on 3rd last page

Five Miles Faster

20 to 25 miles an hour is excellent performance in a comfortable, soundly-built runabout — but 25 to 30 mile speed is obviously a lot better!

THESE extra miles are yours with a Quad-powered hull. Merely stating that the Quad develops 35 horsepower — or that at moderate throttle it will turn out 30 horsepower hour after hour without fuss or strain—gives some idea of its exceptional capability. *But actually to drive it*—to feel the smooth, vibrationless flow of its mighty power, the surging response to every advance of the throttle—is to enjoy a boating thrill entirely fresh and new. No other power plant, outboard or inboard, equals the qualities of its performance on runabouts up to 20 feet.

The new *Senior Speedster* is built to give corresponding satisfaction on somewhat smaller hulls. Like the Quad, it offers *12-volt* electric starting, new, efficient underwater silencer, and is fitted for complete auto-type remote control.

Write for the Elto catalog completely describing these and other advanced Elto models — the Service Speedster and the folding Lightweight. Use the convenient coupon below.

QUAD
Price $345.00
Electric Starting Model $395.00

Senior
SPEEDSTER
Price $215.00
Electric Starting Model $280.00

Elto

ELTO DIVISION, *Outboard Motors Corporation*
Ole Evinrude, *President*
3182-27th Street, Milwaukee, Wisconsin

Gentlemen: Kindly send me the 1930 Elto catalog.

Name .....

Address .....

ELSINORE LEADS *in* SPEED

49.34 m.p.h.

Fastest official 1929 step hydroplane record made by H. G. Ferguson in "Blue Streak," an Elsinore hull. "Blue Streak" holds all American records in Classes B, C and D for step hydroplanes.

Lake Elsinore. April 6, 1930. *H. G. Ferguson in his new* 190-*lb. "Blue Streak" Elsinore hull established a new Class D* 5-*mile record averaging* 43.165 *m.p.h.*

Al. Thomson nationally known sportsman, winner of 1929 Lorimer trophy and holder of the National Class C Mile Straightaway record (43.192 m.p.h.).

Lake Elsinore. April 6, 1930. *Al. Thomson driving his new Elsinore hull, "Black Maria," broke the Class C* 5-*mile record, formerly held by "Blue Streak"* (39.13 *m.p.h.*), *averaging* 39.74 *m.p.h.*

Note: We guarantee to build according to one list of specifications only; we do not promote special racing jobs.

For particulars address

LAKE ELSINORE BOAT WORKS

ELSINORE CALIFORNIA

OUTBOARDING ON THE MAGDALENA

(*Continued from page* 228)

with native children who played in the sand, laughing or crying according to the prompting of the mood. The only means of travel there were small donkeys not much larger than a Newfoundland dog. The natives sat upon their backs cross-legged, their feet under them. Riding in any other manner would cause the feet to drag.

An old native woman who ran a tropical boarding house invited us to eat dinner with her. We only needed one glance to decide.

"No—gracias," I said, "we have just dined."

We managed to purchase a dozen small bananas there for seven or eight centavos. These we put in our pockets and ate as we continued our sightseeing tour through the village.

After awhile we returned to our boat where as usual a great many natives had congregated. I sat writing my notes for the day, while Phil played tunes on his harmonica. The throng was very pleased with the music. Imagine our amazement when one of the natives asked for "Ramona?" And stranger still it was to hear the sweet notes of "My Blue Heaven" go floating out over the muddy river as we sat in the center of the admiring crowd.

When Phil had ceased playing a tall slim native of about thirty-two or three stepped out of the crowd. With chest held high he proudly presented us with several sticks of sugar cane.

"Eat—good—!" he said, pointing to the native confection.

Then in labored and amusing English he explained that he had worked on the Panama canal during the time of its construction. Because of this fact he seemed to be held in esteem by the rest of the natives. His moment had come. He was conversing with English speaking persons. He felt his position very keenly; and smilingly and excitedly he made us understand that he desired we should spend the night with him, and sleep in his prized hammock, which only he, the head of the family, ever used.

He escorted us to his adobe hut, with the crowd of natives trailing curiously behind. The structure consisted of two rooms, very small and littered. With a gracious bow he pointed to the hammock, and touching his breast, said with difficulty. "We—brothers—see?"

As a matter of fact it was a treat to be able to sleep elsewhere than on the ground. After our host had left us Phil and I flipped a coin for the hammock. Heads—I won!

I flung myself into the luxury and Phil threw his blanket down where he discovered several native children also reposed. We arose with daylight and discovered more native children than we had seen the night before. Stepping over the brood we made our way to the boat.

We shoved off, leaving the village behind. But we did not go far until we got into swifter currents of the river that made us wonder what we would do if we happened to get into a whirlpool that would swamp our little boat. We did not get into the whirlpool but we got into something that could have been worse. While in one of the many eddies we encountered, the boat gave a sudden whirl, and shot out before I could get my bearings. Suddenly the bow struck something compact, giving us a terrible jolt. The boat was knocked over about a foot, and swayed and wavered undecidedly before it righted itself. It was an alligator! A drousy one who had not got out of the way of our whirling boat in time.

On we continued, with the river in flood condition. Our original object was to endeavor to penetrate the strongholds of the savage Opones who resisted any invasion of their territory with poisoned arrows. The disappointment of having our guns taken from us had made us continue thus far in spite of difficulties. But now the flood condition of the river, the inability to combat successfully without fire-arms, our position came to us clearly. We decided that to continue would be foolhardy; and common sense told us that there was nothing else to do but head our craft down stream again.

We raced swiftly along, making over fifteen miles per hour with the current. Two days later we were below Calamar, headed for Barranquilla. The river below Calamar was slow and smooth. The banks were dotted with cocoanut palms, and plantain groves were here and there. We passed a great many native boats plying up the river. They were poled by two men, and the cargo was usually a single bunch of plantains.

A range of high mountains loomed up in the east. The highest peaks were covered with snow. I judged them to be the Santa Marta range, a part of the Andes. I had heard that behind those mountains lay immense treasures in gold and silver. But that region was also infested by a fierce tribe of Indians who resist any entry into their country. Many intrepid prospectors have ventured into those mountains, but by fever, or death from the hands of the Indians—no one knows—none of them have returned.

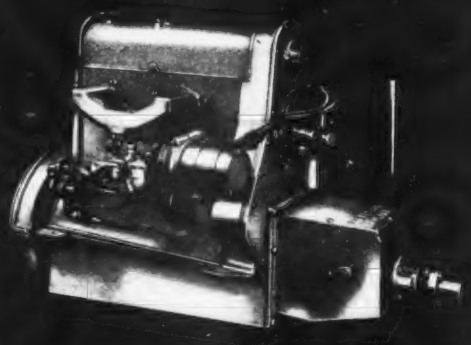
(*Continued on page* 232)

Matchless Unit
VAN BLERCK JUNIOR

INBOARD MOTOR

Now Available in the Famous
13′-14′-16′-17′ and 18′ SEA SLEDS

Fast—30 Miles per Hour
Safe—Dry—Light Weight
Ideal for Power Tenders



SUBSTANTIAL VALUE

$695 Complete

with

VAN BLERCK JUNIOR

Including

Starter, Generator and Reverse Gear

VAN BLERCK MOTORS

RED BANK, NEW JERSEY

VAN BLERCK JUNIOR can now be had in your choice of the following boats

BROOKS	CRANDALL	KEYSTONE-KOLLEGIATE	SEA SLED
CAPE COD	DEE WITE	PETERBOROUGH	TREGONING
CENTURY	DILLON	RAMSEY	WELCH
CHASE EMERSON	HELM	RICE BROTHERS	

We Specialize in All Types of Aquaplanes

AQUAPLANES
Scientifically designed, beautifully balanced, for towing—

SKIBOARDS
(Patents Pending)
The outboard-motor-propelled aquaplanes—

AKWA-SKEES
(Patented Oct. 17, 1925)
The sporty self-balancing double aquaplanes—

SURF-BOARDS
Standard type and genuine Waikiki Model—

DOLPH
A game played on Akwa-Skees, Skiboards and Aquaplanes

Interesting Proposition for Outboard Boat and Sporting Goods Dealers

Write for details and discounts.

Speed Model Akwa-Skee

SKIBOARD CORPORATION
72 HUBBARD STREET BROOKLYN, N. Y.

National Distributors of Water Sports Equipment

Skiboards make thrilling races

Martin Wins 'Em with an
ASHBRIDGE FLYER
He Built Himself!

K-D Race Hulls For Classes A. B. or C.
$79.
Get your Order in Early for Immediate Delivery

—and so can you build your own cup-winning Ashbridge Flyer. We furnish K-D material that has been scientifically selected and cut, ready to put together. Easy to build — and everybody envies an Ashbridge owner. They're consistent winners in every part of the world.

Write for full descriptive literature.

ASHBRIDGE BOAT FACTORY
WILMINGTON, CALIF.

All Genuine Ashbridge Flyers Have Name Stamped in Stern

TEN DAYS ON LOCATION

(*Continued from page 206*)

were going at a speed of 40 miles an hour and would slide clear over and into the water and keep right on going for the next jump. The only trouble experienced was a sheared pin or two.

From this hazard we went to the next one, which was a wooden platform held up by steel drums and tilted at a 45-degree angle. Here again they repeated the jumping. These platforms were made of one inch planking on 2 by 4 stringers, and the last time Jack Kerr jumped his boat over he was going so fast (45 miles an hour) that the bow of the boat went through two planks before rising to jump, which sent splinters flying in every direction. When we looked at it later we found that if the boat had broken one more plank he would have gone straight through the platform instead of jumping, and since he was sitting upright in the boat, you can imagine what would have happened to him. What a jump he made! Fifty feet before coming down. Two blades were broken off the propeller, and Jack prizes this wheel and the picture of the boat jumping more than any other of his possessions. This race picture ended by the boats running up on shore to break a tape fifty feet from the water's edge. If you don't think a boat will run on land you should have seen those boys hit that tape. They would go through it and stop 25 feet beyond, which made a total distance of 75 feet that the boats slid.

From this time on our time was occupied with making boat racing pictures. Here the boys put on some of the best racing that has ever been seen in this State. They started out in fun and ended up in a dog fight. Of all the cut-throat racing ever done these boys did it! In this race scene fourteen boats were entered and we made pictures of it from the shore from another boat and from airplanes. This was our biggest shot, as we used nearly 1,000 people seated on bleachers on the lake front for crowd scenes, and it deserved the time and labor it toook to put it on. It should give the theatregoer every sensation encountered by a race driver. That same day a girl passenger race was taken with little motor dinghies which put quite a humorous touch to the events.

The last day we took shots of little Ikie Osborn in a fishing boat and carrying a Foldlight Motor. He makes a picture with his freckled face that is a knockout. We also took many talking shots, beautiful girls starting and running the new electric starting Elto Quad, which is the answer to the outboard fan's prayer, after it had been filled up with fuel mixture by a Gulf portable tank set on a model Outboard Motor Boat Club dock.

We started this picture on February 24th and ended up March 2nd. During this entire period our equipment was running eight hours out of the day and never once did we have to shut down for repairs to either boats or motors. The motor and boat builders whose products we use deserve the highest words of praise for the ruggedness and durability of their products. Mullins, Penn Yan and Lyman Boats were used and were driven by Evinrude, Lockwood, Elto and Foldlight Motors.

OUTBOARDING ON THE MAGDALENA

(*Continued from page 230*)

I thought, as I watched those towering peaks fade into the distant horizon, what an adventure such an expedition would afford. And now as I write, I can see in my mind's eye those snow capped peaks sharply outlined against the burnt blue of the tropical sky, luring me to return, and offering to me—the glorious adventure!

About noon of the third day we saw the white adobe houses of Barranquilla shining in the bright mid-day sun.

Of course no one spoke English in this, the biggest and best city of all Colombia, but with my meager Spanish, and Phil's sign language we learned the location of the depot. For there was a railway running from this point seventeen miles to Puerte Colombia. It amazed me that there were no roads of any kind except the railway between these two cities, the distance a bare seventeen miles, and over rolling country.

Taking our boat apart and packing it is a half hour job in a Northern climate, but there, working as rapidly as possible, and with the help of a negro whom we drafted for the job and richly rewarded with an American half-dollar, we got it packed after a couple of hours of labor.

I had learned that the train was to leave at one p. m. I was certain that we would miss it. Throwing all our equipment on a cart powered by a donkey, we toiled through the rough narrow streets toward the depot. We arrived there at three. The train was not leaving until five. So we sat on the edge of the railway and waited.

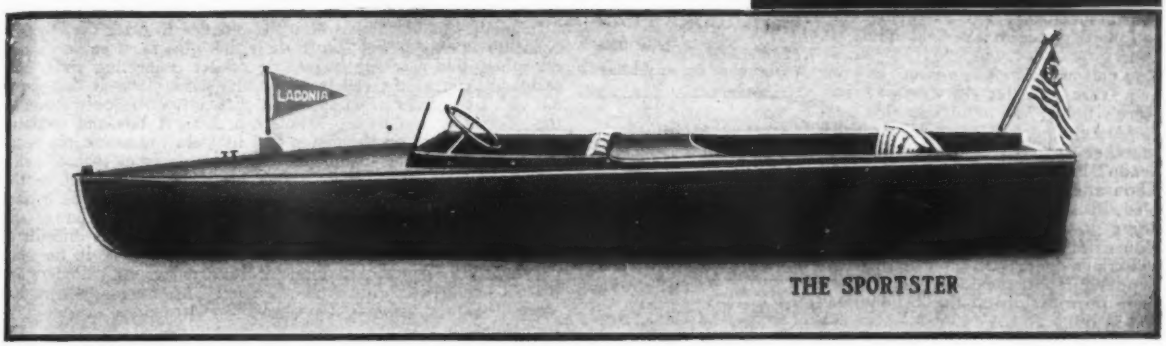
(*Continued on page 244*)

Advertising index will be found on 3rd last page

YOU CAN'T BUY A *Good* ROWBOAT AT THIS PRICE

WAS $369

NOW $200



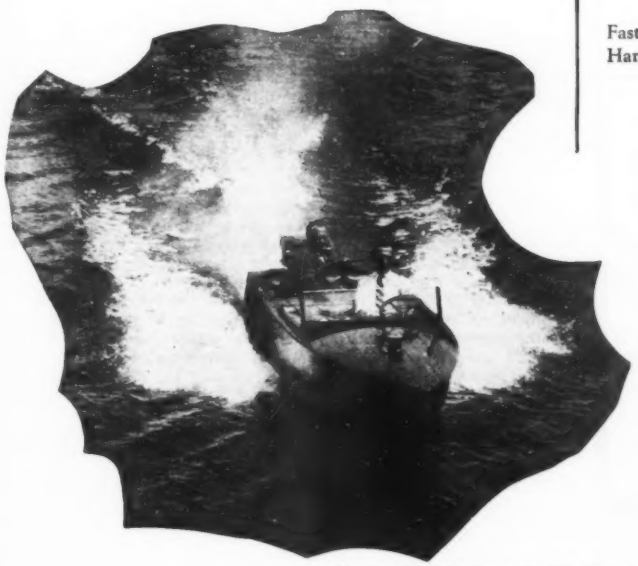
THE SPORTSTER

THE liquidation of our Boat Division enables you to buy a brand new Laconia SportSter at this amazingly low price. There are a few more left in stock. Don't delay. Clip the coupon *now*.

EQUIPPED WITH

- Bow Light
- Stern Flagpole
- Stern Light
- 2 Bow Chocks
- Bow Cleat
- 4 Fender Hooks
- 2 Fenders
- Paddle
- Windshield
- Steering Wheel *with Cable, Pulleys, and Fairleaders Installed.*
- Life Preserver Type Cushions
- Battery Box and Strap
- Ring at Transom
- Switches
- Completely Wired for Lights

The value of this equipment is about $100. It is included with the "SPORTSTER" at no extra cost.



A few "SPORTSTER" Hulls, equipped only with windshield, life preserver cushions, and forward cleat, at $150

SPECIFICATIONS

	SportSter
Length over all	15′ 11″
Beam over all	52″
Weight complete *(without motor)*	350 lbs.
Weight, crated	750 lbs.
Planking and decking	Philippine Wood (Individual planks)
Bottoms	Double planked, with cloth set in white lead between layers for watertightness, painted with anti-fouling bottom paint. Additional stringers besides keel and chines to provide required bottom strength.
Sides	Batten seam construction.
Ribs	Assembled with brass bolts, nuts and washers. Designed for maximum strength.
Fastenings	Copper or brass throughout.
Hardware	White nickel brass.

PRICES: F. O. B. Laconia, N. H.

LACONIA CAR COMPANY

LACONIA, NEW HAMPSHIRE, U. S. A.

LACONIA CAR COMPANY, Laconia, N. H.

Gentlemen: Enclosed find check for ☐ SportSter $200 ☐ Unequipped 150

Ship to:

*Name*_____

*Address*_____

*City*_____ *State*_____

YOU CAN OWN THIS "Champion" OUTBOARD SPEEDSTER for only $55.50

You save two-thirds the usual cost by the Brooks Plan. You keep for yourself the profit you otherwise would pay a boat builder.
The "Champion" shown above is a marvelously fast and trim little outboard speedster—a 1930 racing sensation. Has done over 40 miles an hour.
You can enjoy a "Champion" of your own this summer for only $55.50. Here's how! We send you this boat complete, knocked-down. You fit it together in your spare time. You needn't be a carpenter to do it either. Thousands of amateurs have assembled Brooks Boats—had lots of fun doing it and saved lots of money. You can't go wrong. Our simple instructions are easily followed.
Send 10c for new catalog giving complete information on the "Champion" and 54 other Brooks models—cruisers, sailboats, runabouts, outboard speedsters and most any craft your fancy desires. Write today so you can enjoy your boat this summer and fall.

The BROOKS PLAN saves you 2/3rds the usual cost on any boat.

Cruiser

Runabout

or most any craft your fancy desires

BROOKS BOAT CO., INC.
Dept. E3
Saginaw West Side, Michigan

COMBINATION POST LIGHT AND FLAG POLE SOCKET

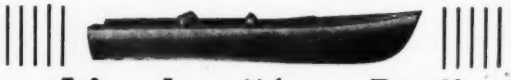
For Class I and Outboard Boats
The sturdy one-piece construction of this light makes it ideal as a towing post. Made in one-piece casting; brass or aluminum highly polished.

T. & B. Type B. & B. Type

We save you money. Write for catalog showing prices and be convinced. We specialize in repairing propellers.

Racing Propellers for Outboards

BRYANT & BERRY PROPELLERS
1292 LILLIBRIDGE STREET DETROIT, MICH.



It's the *"Atta-Boy"*

The Season's Most Popular Outboard

No wonder it's the choice of the man who wants a real boat. Combined with perfect comfort and absolute safety are speed, smart, straight lines, superior workmanship and reasonable prices. Satisfaction guaranteed.

Don't fail to see the new Skowhegan Line of Better Boats and Canoes.

WRITE FOR BRAND NEW FREE CATALOG

SKOWHEGAN BOAT & CANOE CO.
20 Hathaway Street Skowhegan, Maine

LOOKING INSIDE THE OUTBOARD ENGINE

(*Continued from page* 216)

rotary valves and sometimes auxiliary third-ports admitting air only to supplement some other type of valve through which the mixture from the carbureter passes. Piston valves may be used, or ordinary poppet valves, such as the one shown in Figure 5 part I may be mechanically operated by means of a cam and push rod.

But always the engineer must determine, first in theory, and then by experiment and trial, whether the result justifies the added weight, cost and complication. And always such refinements in one phase of motor operation must be accompanied by refinements in other details to procure that superiority in performance which is his ultimate goal.

These other refinements for power may apply to any part of the motor, having to do with pistons, cylinders, bearings, compression pressures, cooling, ignition, lubrication, balance.

In smaller motors it has been the practice to place the opposed cylinders exactly in line. Since the crank pins must be one above the other, this necessitates making off-set connecting rods. The crank pin end of the rod is not in the same plane as the piston pin end. In this construction, when pressure occurs on the piston, the connecting rod thrust is not in a straight line and tends to put side pressure on the piston and to force the crank pin bearing to one side. The examination of a piston from such a motor will frequently show that it has been slightly cocked in the cylinder, bearing heavily at the top of one side and on the bottom at the other side. This creates friction which absorbs power and also causes undue wear, at the same time making it difficult to properly seat the piston rings. It also causes trouble in the connecting rod bearings. To eliminate this trouble, the cylinders are placed, not in line with each other, but off-set enough to permit straight connecting rods. This, however, introduces certain vibration forces as the motor is not then in quite such perfect balance. Often a compromise is arrived at with the cylinders off-set slightly in one direction, the connecting rods in the other.

Piston design is important for maximum power. For example, it was found through a long series of experimental tests some years ago that the height and exact form of the deflector which turns the in-going charge upward into the cylinder is very important. The horse power of one motor was increased, at maximum speed, more than 25 per cent by this one refinement alone. The piston fit is also very important. The skirt—lower end of the piston—must be a few thousandths of an inch larger than the upper part which carries the rings, partly due to the higher temperatures at the top. The thickness of the metal in the head or closed end of the piston must be carefully apportioned so that the intense heat of the combustion may be carried down by conductivity and dissipated through the piston and cylinder walls to the water jacket.

Compression in the cylinders has had much attention. In the high speed two cycle engine the charge is rather highly diluted with exhaust gases. This permits higher compressions than are ordinarily used in four cycle motors. Yet, beyond a certain point increasing compression will neither increase power nor improve efficiency. On the average the compression ratio in the automobile engine will be about 5 to 1—meaning that if there is five cubic inches of mixture in the cylinder when compression starts, there will be one cubic inch when it is compressed. In two cycle outboard motors the ratio may be as high as 7 to 1, or in racing types even higher. In order to procure the small clearance space required in the head of the cylinder with the piston on upper dead center and at the same time retain a deflector of satisfactory height and form, the cylinder head is sometimes cast or machined to conform to the piston top. It is doubtful whether this has any effect on power or efficiency other than to permit of the high compression although it is possible by this means to more or less segregate the compressed mixture on one or the other side of the clearance space—near the spark plug for example.

Cylinders must be carefully designed with reference to cooling and minimum of distortion particularly. The water jacket must completely surround all parts subject to the direct heat of combustion. In larger motors of high power the water should be extended below the ports, and one of the most important requirements is that the spark plug boss be well cooled to prevent overheating of that overworked accessory, the spark plug. If the cylinder walls are not uniformly cooled, or if large masses of metal connect it to the outside water jacket so that it cannot expand uniformly, it may become distorted under high temperature, get out of round, permit leakage past the piston and rings, and cause loss of power, overheating, burned pistons, and stuck piston rings.

No motor can be successful without efficient bearings. The main bearings must not only carry the crank shaft and withstand the high pressure created by the explosion, by inertia forces and by vibration, but they must also act as seals to prevent the

(*Continued on page* 238)

Advertising index will be found on 3rd last page

New Stern Drive Features Advance Chase-Emerson Performance

Occupants sit together as in an auto sedan model. The boat is much drier because everyone sits forward of the spray line. The higher freeboard amidship and forward affords greater protection from the water.

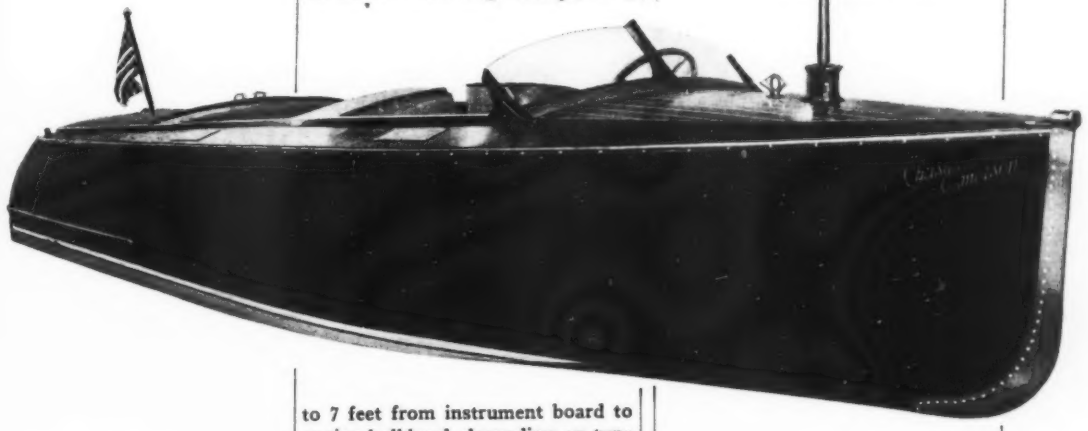
More even distribution of weights makes boat easier to handle and maintain a better planing angle at all loads. One large cockpit — 6 to 7 feet from instrument board to engine bulkhead, depending on type of engine. No one is annoyed by engine noises, fumes, etc., for the motor is aft of seats.

Stern drive installation sharply reduces tendency to nose-dive. Airplane type of frame construction gives greater strength and lighter weight per foot of hull and increased speed per horse power. Greater economy in operating and maintenance costs naturally follow.

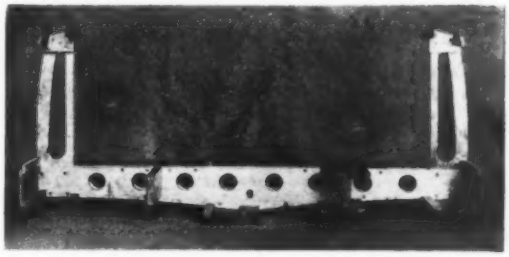
Passengers can safely change seats while under way without climbing over a long engine hatch or seat backs. Large storage space in two cockpit lockers and underneath all seats. Quicker response to steering wheel as power thrust of propeller drives boat.

Since no drive shaft goes through keel, its strength is unimpaired. No shaft log and stuffing boxes in bottom of boat to cause leaks and other troubles. The motor is installed on a plane parallel to keel to insure equal distribution of lubricating oil to all working parts, thereby increasing motor's useful life and reducing upkeep costs.

Chase - Emerson Model 176, with airplane frame construction illustrated below.



The broad surface of drive units lower part acts as a rudder for steering purposes, even when motor is idle. Ample room in engine hatch to work on engine. Self starter, reverse gear, ignition lock, and electric horn.



Price range: from $995, to $1395; F. O. B. Norwalk, Ohio, according to size of hull, 16 ft. and 17 ft. 6 in., and type of engine installation.

A. B. CHASE-EMERSON CORP.

11 West 42nd St., New York City. Factory at Norwalk, Ohio

A. B. Chase-Emerson Corp.,
11 West 42nd Street,
New York City

Gentlemen: Please send me complete information regarding Chase-Emerson Motor Boats.

Name .....

Street .....

City ..... State .....

FASTEST Outboards Built!

Faster on the get-away! Faster on the straight-away! Faster and surer on turns! PENN YAN Outboard Racing Boats have demonstrated their merit in actual competition. Special composition construction means no leaking or water soaking—less weight in service and therefore more speed. You win races with a PENN YAN. Write for folder and prices.

PENN YAN BOAT CO., Inc.
Builders of Penn Yan Dinghies
15 Water Street Penn Yan, N. Y.

PENN YAN BOAT Co.
Builders of Penn Yan Dinghies
15 Water Street, Penn Yan, N.Y.

IT HAS been our privilege to assist hundreds of pleasure boatmen in the selection of their equipment.

The new season finds us with increased facilities, new shops, new display rooms, more dock space, new hoists and runways, once more ready to help you find the outfit that will give you the most satisfaction, or to assist you in getting the best results from the outfit you already possess.

It will well repay you to Come to Flushing Bridge.

BRUNO BECKHARD
FLUSHING NEW YORK

Twenty minutes from Penn Station. Thirty-five minutes from Times Square. Outboard and inboard boats, motors, service, accessories.

We offer a 15-foot runabout at $695 complete that we believe challenges comparison.

NEW OUTBOARD ASSOCIATIONS ACTIVE

PACIFIC COAST AND NATIONAL OUTBOARD CHAMPIONSHIPS

On September 8 and 9 at Lake Merritt, Oakland, California, under the auspices of the Outboard Motor Association of Northern California and sponsored by the Oakland Junior Chamber of Commerce, a regatta will be held to decide the Pacific Coast champions in classes A, B, C, D, E.

The winners in each class will be eligible to compete for the National Championship in that class. The National Championships will be held in October probably at Middletown, Conn., and the Pacific Coast champion in each class will have his expenses paid to the National Championship Regatta.

The Pacific Coast is divided into four Sections:

(a) Washington, which includes the northern part of Idaho, Montana, all of British Columbia, and Alaska.

(b) Oregon, including the southern part of Montana, and Wyoming.

(c) Northern California, including the northern part of Nevada, all of Utah and Colorado, and the Hawaiian Islnds.

(d) Southern California, including the southern part of Nevada, all of Arizona and New Mexico.

Arrangements should be made in each section to hold a Sectional Championship Regatta in which there should be races for each class. Only those who have placed 1st, 2nd, or 3rd in a sanctioned regatta in 1930 will be eligible to enter the Sectional Championship Regatta.

Those who place 1st, 2nd, or 3rd in each class in the Sectional Championship will be eligible to enter the Pacific Coast Championships. The Oakland Junior Chamber of Commerce will announce later regarding how much they will allow in the way of expenses to the drivers coming from the different sections.

Drivers placing 2nd and 3rd at the Pacific Coast Championship will be eligible to go to the National Championships but they or their associations will have to pay their expenses.

Sectional, Divisional, and the National Championships are open only to Division I and II drivers. The same or similar outfits must be run in the sanctioned races that qualify them for the Sectional Championships in the Sectional Championships, the Pacific Coast Championships, and the National Championships.

The Lorimer Trophy will be competed for at the Pacific Coast Championship Regatta, and will be open only to Division I and II drivers.

PHILADELPHIA ASSN. PLANS FOR AUGUST REGATTA

The Philadelphia Outboard Regatta Association will make application to call two or perhaps three of its events international championships, according to an announcement by the Philadelphia Chamber of Commerce, which is lending its aid in the holding of the annual regatta August 8 and 9.

One of the events will be called the International professional outboard championship of 1930, if sanction of the American Power Boat Association can be obtained. It will be for professionals only. It is also planned to call the annual classic $6,000 Sir Thomas Lipton trophy race the international amateur outboard championship, and perhaps the recently planned intercollegiate race of the regatta also an international event. All will be held over the famous American Henley rowing course on the Schuylkill River.

The Lipton trophy will be strictly for amateurs, drivers of divisions 1 and 2 only being eligible, and boats only of classes B, C, and D can enter. Invitations will be sent to leading racing organizations of Europe to send entries here for both the Lipton race and the pro event. A special trophy will be donated probably by the Chamber of Commerce, to become the permanent possession of the winner of the pro title.

There will also be inboard-outboard races, races for family boats, time trials, and a number of other special events this year, most of which will be innovations for the Lipton cup regatta. The association will hold bi-weekly meetings at the call of Commodore William Freitag, until all of the plans have been completed for the events.

DENVER GROUP ORGANIZES

Application has been made to the National Outboard Association by members of the Grand Lake Yacht Club of Denver, Colorado, for a charter. The club has not been active in outboard racing and this year will mark their first attempt at staging races for the tiny speedsters. A special outboard regatta has been planned for August by R. E. Gentry, secretary of the Grand Lake Club.

Advertising index will be found on 3rd last page

SAVAGE UNIVERSAL BRACKET

(Removable)

Makes the Outboard Motor
Your Auxiliary Power Plant

IF

- *The wind fails*
- *You foul your propellor*
- *Your motor fails*
- *You want to troll*
- *You want a reserve*

EMERGENCY

Power Plant

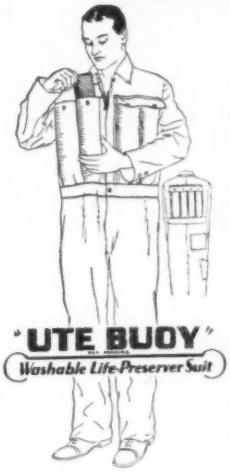
Recommended by All Outboard Motor Manufacturers

SAVAGE BOAT CO., LTD.

585 Boylston Street (at Copley Sq.)

BOSTON, MASSACHUSETTS

Combination Coverall and Life Preserver Suit



Made of durable white herringbone drill (not waterproof) in one piece style. Entire suit triple needle stitched and bartacked at seams. Cloth is pre-shrunk. Talon Fastener down front. Two back pockets. Life preserver feature consists of two compartments in front, one large compartment in back, holding eight tubes of rubber filled with finest KAPOK. Rubber tubes vulcanized and easily removed for laundering. Compartments arranged to allow freedom of movement. Kapok can't come in contact with water. Wearer has double purpose garment—other life preservers unnecessary. Price $15.00, postpaid.

"UTE BUOY"
Washable Life-Preserver Suit

DEALERS: If your distributor does not handle the UTE-ility Line write us direct.

NEW IMPROVED MODEL — One-Piece — WATERPROOF — WINDPROOF. Made of double texture cloth with rubber vulcanized in between. Rustproof Talon Fastener all way down front. Elastic wristband and concealed elastic waistband. Straps at bottom of legs, breast and side pocket, extra seat in pants and reenforced crotch. Detachable hood. Every seam fully cemented and strapped. Cut full. Khaki color $12.50, White, $16.50, postpaid.

Dealers: If your distributor does not handle the Ute-ility Line, write us direct.

"UTE"
The All-Weather Utility Suit

UTILITY GARMENT CORP.
421-425 Arch Street,
Philadelphia, Pa. (dept. M.B.)

THE
RAMSEYBOUT
IS THE REAL
FLORIDA PLAY BOAT

when powered with a
Van Blerck, Jr. Inboard Motor
or a
Class "C" or Larger Outboard Motor

THE
1930 HOOH RACERS
are built for the NEW OUTBOARD MOTORS
Weights Conform to N. O. A. Rules

Built by

A. H. RAMSEY & SONS, Inc.

P. O. Box 932 71 N. W. 11 Terrace

MIAMI, FLORIDA

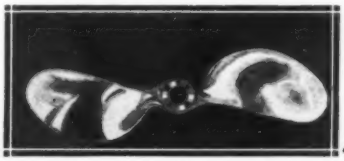
LYMAN CLINKER-BUILT OUTBOARDS

BUILDERS of good boats since 1875 and with a policy of constant progressiveness, LYMAN boats have been advanced to the highest state of efficiency and performance. They have an undisputed reputation for extreme speed with safety, and having been developed on the rough waters of Lake Erie will prove dependable everywhere. The characteristic LYMAN Clinker-Built construction produces a water-tight boat at all times and is not equalled by any other method.

A complete line of sturdy speed tenders, practical utility boats and fine runabouts in sizes from 8 to 17 feet. Send for catalog.

LYMAN BOAT WORKS

FOOT OF FIRST STREET SANDUSKY, OHIO



41 Straight Wins!

STANNUS PROPELLER CO.
—"the 41 straight races won with my Ludington Lightning during the past summer were won with a Stannus Propeller . . . I used the same wheel all summer."
—EARL GRESH

Dealers! Write for our new price list just off the press, giving sizes and styles! Your customers will be pleased with this wonderful propeller—this folder will help you select proper sizes for their boats. Write for i today.

STANNUS PROPELLER
FOR SPEED
CORPORATION

4089 BEAUFAIT AVENUE
DETROIT : : MICHIGAN

PHILIPPINE MAHOGANY

As Supplied by

BLACK & YATES

Is Used as Standard by the Leading Manufacturers of Outboard Boats, Runabouts and Cruisers for the Following Reasons:

1. Beautifully figured
2. Extremely strong and durable
3. Very light in weight
4. Easily worked
5. Economically priced
6. Comes in required widths and lengths
7. Free from pin worm—hole defects

Black & Yates Philippine Mahogany is imported directly from the Philippine Islands, *duty free*, to our Brooklyn, N. Y., yard, where over 2,000,000 feet of clear, thoroughly air-dried and seasoned lumber is carried at all times for immediate shipment.

Let us quote on your 1930 *requirement*

BLACK & YATES, Inc.

Paramount Building

1501 Broadway **New York, N. Y.**

Telephone: Longacre 1345-6-7

SENSATION OF 1930

Stevens Sport Runabout

SPEED—BEAUTY—COMFORT

Stevens Yankee-built line is complete from the flat and round bottom fishing boats to the beautiful mahogany Sport Runabout illustrated — the finest craft at the lowest prices.

Write now for free illustrated folders and prices.
DEALERS: Sell Stevens Boats. Ask for full details.

Stevens Tank & Tower Co. 9 Center Street Auburn, Maine

OUTBOARDERS!

AT LAST!!

A Real, Snappy "Live" Looking

RADIATOR MASCOT

for your car!

Let the world know you're a OUTBOARD BOOSTER

POLISHED ALUMINUM HULL with lifelike ALUMINUM FIGURE in RACING POSITION!!! $2.75

MODEL MANUFACTURING COMP.

QUINCY P. O. Box 240 MASS.

LOOKING INSIDE THE OUTBOARD ENGINE

(*Continued from page* 234)

compressed charge from escaping from the crank case. And in addition they must be as near frictionless as possible. Ball and roller main bearings have been tried and successfully used but since it is necessary to also provide some sort of plain bushing bearing to seal the crank case these anti-friction bearings have not met with high favor. The plain bronze bushing of ample size with adequate lubrication is quite satisfactory.

Connecting rod bearings—on the crank pins—are perhaps the most heavily loaded bearings in a high speed motor. It may not be generally appreciated that the inertia forces of the reciprocating parts, the pistons, rings, piston pins, and connecting rods, are sometimes larger than the total force of the explosion on top of the piston. Nor that these inertia forces increase as the square of the speed so that if the speed is doubled—say, from 2,000 revolutions per minute to 4,000 revolutions per minute—the forces are four times as large. The rubbing velocity between the outside surface of the crank pin and the inside surface of the connecting rod bearing; the low quality and small quantity of lubricating oil which actually reaches these surfaces; the high temperatures prevailing; the high pressures; and the fact that engineers want these bearings as small as possible in order to keep the crank case clearance small—all these conditions must be met. It is now common practice to harden and polish the crank pins and to use phosphor-bronze connecting rods as these permit higher pressures than soft steel and babbitt bearings would stand. Special lubrication systems have been developed too but this subject will be covered later.

It is only recently that roller bearings have become extensively used on crank pins. Their rugged qualities have been well known, but not even the manufacturers have thought it feasible to operate rollers in split races. Unless a very costly, heavy, and large built-up crank shaft is used, the bearing must be split in halves in order to assemble it on the crank pin and inside the connecting rod. The rollers run directly on the hardened crank pin, of course, and this offers no difficulty. But the cap of the connecting rod must be detachable. The present practice is to fit the cap to the rod closely, harden it—steel is used of course—grind to a smooth and true surface, remove the cap and assemble on the crank pin with the rollers in place. Thus the crank pin is the inner race, the connecting rod itself is the outer race. But the rollers must roll across the lines, one on each side, which divide the cap from the rod. It is this split which tends to make such an assembly somewhat less than perfect. But it works and while the rollers are heavy and the big end of the connecting rod rather large in diameter thus placing additional load on the crank pin due to centrifugal force, the bearings are short, free from lubrication troubles under ordinary usage, and satisfactorily durable. The shortness of the bearing permits off-set between opposed cylinders and a short distance between main bearings, also a small crank case clearance volume.

It is difficult to discuss any one refinement for power without at least mentioning nearly all the others for they are so interdependent as to be inseparable. It is the combination of expert design and skillful workmanship in all important details of the motor construction which gives the final satisfactory result. Not roller bearings alone, not a rotary valve alone, not a perfect piston or a well finished cylinder that in itself can produce the most exceptional performance, but all these fitted together into a perfect harmonious assembly. And the care with which parts are made and the accuracy of assembly play no unimportant part.

New England's Leading Marine Dealer

Representing—

Dodge Runabouts	Corsair Cruisers
Lyman Skiffs	Porteus Boats
Ludington Boats	Mullins Boats
Duplex Marine Oil	Lycoming Motors
Kasson Grease	Ute Garments
Wilcox, Crittenden Hardware	Johnson Motors
Malabar Paint	Balubricote Paint
Doane Knockdown Boats & Plans	Stannus Propellers

Visit Our Showroom or Write for Information on Any of the Above Products

ATLANTIC RADIO & MARINE CO.

INCORPORATED

20 BROOKLINE AVENUE, BOSTON, MASSACHUSETTS

Advertising index will be found on 3rd last page

The Boat You Want . . . . Fay Bow "Middy"

An all mahogany sixteen foot Outboard for the family

COMING

We will soon announce a new Fay Bow 18-foot inboard runabout powered with 40 H.P. Lycoming engine. Ready for delivery early in the season.

Write now for advance details.

The "Middy" is designed to meet every requirement for an outboard runabout. Safe at all speeds she planes beautifully and banks safely. Speeds up to 34 miles an hour and turns in almost her own length at full speed without shipping water. *Indeed a safe boat, and a fast one.*

You will be proud to own a Fay Bow "Middy." It is of mahogany construction, brass screw and copper fastened and plugged.

Beautiful upholstered seats with lazy backs, seating capacity for six to eight. Handsomely finished and equipped with the finest hardware,—*a beautiful boat.*

The same hull as the "Middy" is also available in a lower priced model. Ask us about it.

Fay Bow "Mystery"—A Fast Racer

A sturdy racing craft and winner of many important races. Two Models: B and C class (weight 150 lbs.), and D and E class (weight 190 lbs.)

Write for illustrated literature.

Fay Bow Boats, Inc., Geneva, N. Y.

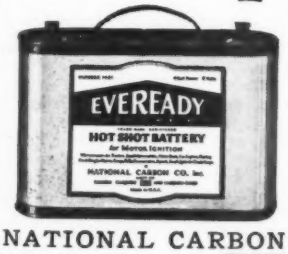
TRADE MARK

WOLF'S HEAD OIL

WOLVERINE · LUBRICANTS · COMPANY · INC.

A Revelation in Lubrication

WATER-PROOF *POWER!*



EVEREADY Hot Shots defy rain, waves and hard knocks. In 6, 7½ and 9 volt sizes. Sold in every port.

NATIONAL CARBON COMPANY, INC.
New York UCC San Francisco
Unit of Union Carbide and Carbon Corporation

Thompson BEATS the World on BOATS

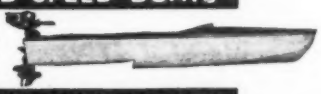
THOMPSON BOATS

CATALOG FREE!

The best that skill and experience can produce—at real money-saving prices. Prompt shipment from factory to you.

OUTBOARD SPEED BOATS

Thompson's famous Hi-Speed Step Planes. Plane quickly, ride level and smooth and take sharp turns with safety. Will not "trip" when riding the wake of other boats.



OTHER OUTBOARD BOATS

Eight new speedy Models — Strong, comfortable and safe. For any outboard motor. Exceptionally seaworthy. Prices, $60 and up.

ROWBOATS

Square Stern Rowboats—Made both smooth sides and lap strake construction. Steady, seaworthy and easy to row.

Prices, $48 and up.

MOTOR BOATS

With or without engine. Strictly up-to-date 20 ft. models. Fast, handsome 6-passenger craft at money-saving prices.

CATALOG FREE — SAVE MONEY — ORDER BY MAIL

Please state the kind of boat you are interested in (37)

TWO LARGE FACTORIES

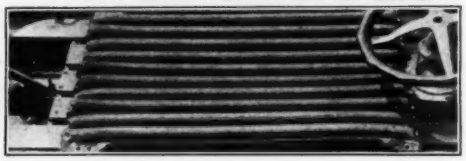
Thompson Bros. Boat Mfg. Co.

210 Ann Street
PESHTIGO
WISCONSIN

(*Write to Either Place*)

110 Elm Street
CORTLAND
NEW YORK

Get AN Airubber PAD and FLOAT



IF YOUR speed boat spanks you unmercifully—if you have been trying to get by with an old water-soaked, mildewed pad of some sort—it's time for better luck.

Get an Airubber Pad and Float. New multiple chamber construction as shown above gives you low center of gravity with proper comfort and protection. No more raw hipbones from polishing the grating! No more saturated breeches from spray-soaked old style padding. Always dry, always clean, your Airubber Pad will make racing a joy. Extremely light—saves weight. Tied in by brass grommets in corners, helps buoy the boat if swamped or upset.

Trade Mark

Inside-rubberized strong, durable khaki jean, pressure molded. No. 511, size 20" x 36", weight only 3½ lbs. Price $9.00.

Many other sizes; please write for prices.

Neptune Life Preserver

Unequalled for sport, the Airubber Neptune Life Preserver is the lightest and most comfortable. Wear it deflated as a vest. Valves close to mouth—two or three blows inflate each separate pair of air chambers. Official equipment on all U. S. Navy seaplanes. Weight 17 oz. Price $5.00 All leading outfitters sell Airubber equipment as the best. If not on display, please write to us. Folders, prices and 2-qt. camp water carrier, FREE.

The Neptune

Airubber DEPARTMENT **New York Rubber Corp.** Box 65 Beacon, N. Y.

Canoe-Bial Bliss

A silent stream through a tunnel of trees . . . now and then a leaf sifting down to float as lightly as your "Old Town Canoe." A stroke of the blade to urge you on . . . now rest . . . now stroke again. There's nothing like idly gliding in an "Old Town Canoe"!

Actual Indian models are used in the making of "Old Towns." That's why they're so easily handled, so well-balanced, and so exceptionally steady. Their durability comes through modern manufacturing methods.

Free catalog shows paddling, sailing and square-stern models. As low as $67. With sponsons if you like. Also shows big, fast, seaworthy, all-wood outboard family boat; rowboats; dinghies; and speedy step-planes. Write today. Old Town Canoe Co., 187 Middle St., Old Town, Maine.

"Old Town Canoes"

BUILD YOUR OWN BOAT

SIMPLE - - - - - PROFITABLE

Bill Frey in His Welch Designed Hydroplane

You can build your favorite boat. The Welch System makes it easy, interesting and profitable. The boat builder's work is done in our shop. You assemble the parts. Our new catalog explains this new system of boat building. Send for it.

It is full of brand-new designs: inboard—outboard—cruisers—sail and rowboats. You will find just the design you want. You can own a fine boat for surprisingly low price.

J. B. WELCH Inc. 1350 41st Street Milwaukee, Wis.

THE MONTH WITH THE OUTBOARDS

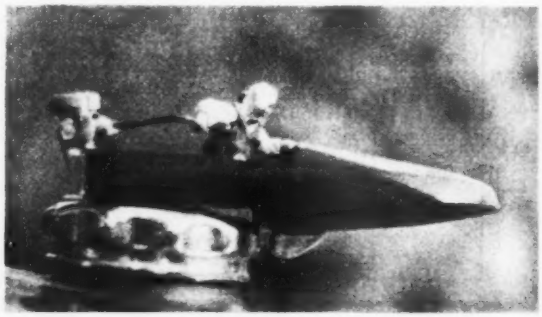
(*Continued from page* 238)

on actual happenings. Clear, usable photographs, not less than six in number, must accompany each story submitted, which will make the printed reproduction of the story more interesting to the reader. The prizes will be: first—$100, two second prizes of $50, five third prizes of $10, totalling $250. Winners will be announced by Outboard Motors Corporation on November 1.

If you've skippered an outboard cruiser, you have a chance to win one of the contest prizes. For further details on this interesting outboard cruiser story contest, write Outboard Motors Corporation, Milwaukee, Wisconsin.

RADIATOR MASCOT FOR OUTBOARD FANS

Outboard fans enthusiastic about their favorite sport are now offered a most unique and ornamental little decoration for their cars in the form of a handsome miniature of an outboard driver piloting his craft at full speed on the top of their radiator caps. The emblem is decidedly realistic and expresses a world of action in its execution. The device, known as the Radiator Mascot, is the product of the Model Manufacturing Company of Quincy, Mass. Officials charged with the selection of prizes for outboard regattas will find that the Mascot offers a most appropriate trophy for minor racing events.



The Radiator Mascot, an appropriate device to adorn the cars of outboard fans

HARVEY-ROBB TO DISTRIBUTE CAILLE

Harvey-Robb, Inc., 910 Commonwealth Avenue, Boston, have been appointed New England distributors by the Caille Motor Company, manufacturers of the popular new Caille Red Head outboard motors. An attractive showroom is maintained by this new organization at the above address and convenient demonstration facilities are provided by means of a private dock only a few steps from the showroom. Complete service on parts and mechanical repairs has been made available to all Caille owners in the New England territory.

This appointment, according to W. R. Bullen, sales manager, is but another indication of the factory's desire to provide the best possible service to Caille owners. Harvey-Robb, Inc., are well known as automotive distributors in the New England territory. For some time they have been interested in extending their lines and their choice of Caille Outboard Motors reflects their confidence not only in Caille but in the future growth of the motor boat field.

Demand for the new Caille Red Heads is reported as being unusually large in this firm's territory, as it is in all other sections of the country. The convenience and ease of handling which result from the Multi-flexible Control feature found only on the new Caille motors are attracting widespread interest among outboard enthusiasts and retail orders are running materially ahead of any previous year.

FIGURE YOUR SPEED

Many outboard racing drivers have wondered at different times what the theoretical speed of their boat was. Also, what percentage of slippage they were having on their propeller.

The Cross Gear & Engine Company, 3250 Bellevue Avenue, Detroit, Mich., has issued a series of tables and charts which will give you this information at a glance—any engine speed up to 6,000 r.p.m. and any propeller lead or pitch up to 20 inches. There is also included a simplified formula for rapidly computing any speeds not contained therein.

These charts will be forwarded to any one sending a self-addressed, stamped envelope to the above company.

(*Continued on page* 244)

ADVERTISING PAGES REMOVED

MOTOR BOATING'S Ideal Series

Volume X

The Outboard Motor Boat Book

Plans, Specifications and Building Instructions for Over 30 Craft of Various Types and Sizes Suitable for Powering with Outboard Motors

THIS is the book which everyone has been waiting for. The scope of the craft, plans, specifications and building instructions of which are printed in this volume, is very broad. Everything is included from the smallest rowing dinghy suitable for a Class A Outboard Motor up to the fastest Class C racing hydroplanes. Plans of some of the outboard racing boats which have established world's records are included. All of the boats are easy for the amateur or novice to build. If you wish to use the boat on the seaboard or inland waters or on some lake or smaller body of water you will find a design which is suitable. If you are partial to sail and use the outboard as an auxiliary to get home with should the wind fail, you will find a number of designs of these boats, too. The plans and designs are particularly clear and easy to understand and no previous knowledge of boat building is necessary to turn out a successful boat. You should not fail to have a copy of this book.

THE CONTENTS OF VOLUME X

RINKY-DINK, A 7-FOOT PRAM
A useful little dinghy for carrying one or two persons between the shore and the larger boat.

PIRATE, A MODEL SLOOP
A complete design for constructing an excellent little model sailing sloop which can compete in model races.

SKIPPER, AN OUTBOARD PRAM
An easily built little flat bottom speedster suitable for outboard engines in the smaller sizes, which will produce speeds up to about thirty miles.

HANDY-ANDY, A SAILING DINGHY
A simple little round bottom design fitted with a single sail which will furnish ideal sport for the skipper who is spending spare time while his larger vessel is at anchor.

JAN, A SAILING SKIFF
A ten-foot flat bottom design which will serve equally well as a dinghy, sailboat and outboard engine tender.

CARRYME, A UTILITY DINK
A useful little flat bottom dinghy which is easy to build and which will carry from three to four persons.

APPLE SAUCE, A FAST LITTLE SPEEDSTER
A simple little design for a fast outboard racer, which will do over thirty miles per hour with a suitable engine.

TAKAPART, A FOLDING PUNT
An original design for a small boat which is easily portable. Made in three sections which fit one inside the other so that it can be carried on an automobile.

ANABELLE, A 10-FOOT DINGHY
An excellent design for a 10-foot row boat arranged to carry three or four people and which can be used with any of the smaller outboard engines as a boat tender.

NYMPH, A 10-FOOT SAILING DINGHY
An attractive little boat fitted with a large sail and center board which will enable it to sail very nicely and which is also arranged to handle an outboard engine.

A 12-FOOT DINGHY
A first class design for a slightly larger outboard engine tender capable of carrying four persons.

JAZZ BUG, 12-FOOT HYDROPLANE
A fast little hydroplane which will handle engines of class B and with which it should do thirty miles.

SMARTY, A UTILITY BOAT
A 14-foot flat bottom dinghy arranged to handle under sail or under power of an outboard engine. Should be able to carry at least six people.

BUSTER, A 12-FOOT SAILING DINGHY
A round bottom dinghy of somewhat larger size, arranged for both sail and outboard engines.

SNAPPER, A SAILING DINGHY
A smart little round bottom tender, which can be used for much useful service in pleasure or work.

GANNET, A COMBINATION DINGHY
A roomy round bottom sailing skiff with a dagger type centerboard and a large main sail. Will handle nicely under sail and can be used with an outboard engine also.

GREEN DIAMOND, A FAST OUTBOARD
A 13-foot V-bottom hydroplane which has performed well in competition. It is designed for the modern fast outboard engine and should do 35 miles per hour quite easily.

DANCER, A 12-FOOT DINGHY
An inexpensive little boat designed particularly as a substantial flat bottom row boat for tender and ferry service.

WHIZ, A BABY HYDROPLANE
A sporty little speedster designed particularly for amateur construction arranged for use with an inboard engine of 20 h.p. with which it will do 30 m.p.h.

BABY STEPPER, A 14-FOOT OUTBOARD PLANE
A well tried and proven little design for a speedy outboard engine racing boat. Will handle engines up to class C with which the highest speeds will be secured.

SCANDAL, AN OUTBOARD MOTOR BOAT
A flat bottom dinghy 14 feet in length which will be suitable for tender service and similar work.

PIXIE, A V-BOTTOM ROW BOAT
A very able design for a large roomy row boat, capable of carrying a large load in passengers or baggage.

NONPAREIL, AN OUTBOARD ENGINE CRAFT
A design generally similar to that of Pixie but decked over for the greater part of its length so that it is much more sea-worthy and able.

MARYBELLE, A 14-FOOT RUNABOUT
An excellent little design for a useful little runabout, designed to be driven by an engine of about 10 h.p. with which it will perform very well.

SUE, A MOTOR SKIFF
A broad beamy 15-foot motor skiff arranged for an inboard engine of 5 to 6 h.p. With this it will do 6 to 7 miles per hour and will carry a very heavy load.

EDITH, A HAND 15-FOOTER
A V-bottom design for an attractive little runabout arranged with a small engine in the stern and passenger space forward.

TOTO, AN OUTBOARD RUNABOUT
An inexpensive and easily built 16-foot runabout designed particularly for the modern outboard engine. An able little craft which will carry five persons comfortably.

FLATTIE, A 16-FOOT UTILITY BOAT
A simple little flat bottom skiff designed for a small single cylinder engine, practical for many kinds of service.

WHIZ, AN OUTBOARD SPEEDSTER
A 16-foot stepless outboard speedster which is easy to build and fast enough for any one who does not care for extreme high speeds.

TRANSCO, AN OUTBOARD RUNABOUT
A sturdy and substantial 16-foot boat, built with lapstrake planking on a round bottom design. This boat will make a very able job for long cruises.

SEA SHELL, A SERVICEABLE BOAT
An excellent design for a 17-foot round bottom boat, suitable for rowing, sailing, or an outboard engine.

CANVAS-BACK, A CANVAS-COVERED CANOE
This design follows the typical canoe style of construction and has a square stern which adapts it to the use of an outboard engine. The boat is 17 feet in length and has a beam of 3½ feet.

GOZO, A PETITE SLOOP
A pretty little design for a 16-foot auxiliary sloop arranged for a small inboard engine. The cabin arrangement provides berths for two persons and this little boat will make an excellent cruiser for the young fellows.

Price of the Outboard Motor Boat Book, Volume X, Ideal Series.....$3.00

Foreign Postage 50 Cents Extra

MOTOR BOATING, FIFTY SEVENTH ST. AT EIGHTH AVE., NEW YORK, N. Y.

"Half-Mile-Ray"

The Searchlight Supreme

BRILLIANT, illuminating . . . piercing the still blackness of night . . . penetrating the dense gloom of fog—"Half-Mile-Ray" searchlights are truly "Night eyes of the sea" . . . *steadfast, reliable and instantly controlled.*

When such famous craft as Elco, Chris-Craft, Banfield, Matthews, Richardson, Chance, Rochester, Humphrey and Greenport are equipped with them . . . *you know the quality.*

"One-Mile-Ray"—same style; twice the range.
"Quarter-Mile-Ray"—the great little light for outboards.

Exclusive Marine Distributors for Northeast—(Whistletone) Horns and Sireno Sirens.

Write for illustrated folder "MG5," describing the various searchlight models. $10 to $125.

The PORTABLE LIGHT CO., Inc.
12 Warren Street New York City

No. 800-A Pilot House Control $60

Wiring enclosed in metallic cable—absolutely waterproof. Brass, bronze or khaki enamel.

THE MONTH WITH THE OUTBOARDS

(*Continued from page* 240)

MORRELL RE-ELECTED COMMODORE

Commodore Charles A. Morrell has been re-elected commodore of the Delaware River Outboard Motorboat Association, at the annual meeting of that club recently. Other officers chosen were John Dougherty, vice commodore; N. Morris, rear commodore; George Smith, secretary; John P. Robinson, treasurer; and N. Morris chairman of the regatta committee. The association is planning an active racing season, and is enthusiastic as the result of the amateur professional rules of the A. P. B. A. to which it will adhere this season.

CONCERNING THE NEW RACING RULES . .

In regard to the new outboard racing rules, question has risen in reference to the classification of certain drivers who devote a small percentage of their time to the repair or overhauling of outboard motors and who receive pay for such work. To quote the problem as it was presented to the National Association:

"A chap is an automobile mechanic, having been engaged in the regular business of repairing automobiles and automobile motors for several years. He may occasionally spend part of his time making minor repairs to outboard motors and receive pay for same; however, the outboard motor repairs do not constitute an average of more than three hours' work in three weeks, and his business is primarily the repair of automobiles. He does not race for cash prizes. In view of the above situation, must he be classed as a professional driver in class three under the new rules?"

The ruling made on the above point by the association was to the effect that there is no question but that such drivers must be classified in division 3. It is understood, of course, that there is a possibility that any hard and fast rule may perhaps work a hardship upon a small percentage of persons affected by it, but it is also readily appreciated that it would be impossible to make any exceptions to the general ruling as difficulty would naturally be experienced in drawing a line somewhere which would be equitable to all concerned.

OUTBOARDING ON THE MAGDALENA

(*Continued from page* 232)

Five o'clock came, and still no train was in view. Three priests arrived, dressed in their black robes, wearing peculiar black hats, and with bright red crosses shining on their breasts in vivid contast to the sobriety of their garments.

"Surely the train will go soon! We have been waiting for the priests," we thought.

True enough. A few dinky box cars, and a small coach marked *Primera Clase* backed into the view of the passengers. We all scrambled on.

At six we still sat there. At seven we had not moved. The word was passed around that the engine had broken down. I was not surprised to hear that.

At eight the priests all left. A small black boy walked astutely along almost hidden from view by their baggage which he carried.

"We are lost!" I moaned. "The train will not go to Puerte Colombia tonight!"

About that time someone brought word that when the engineer could be located the train would start.

Finally, after an hour's search, apparently one was found, for at nine o'clock sharp the train pulled out of the station exactly eight hours late!

And that—is the way the railway system is run in the Republic of Colombia.

An hour and a half later we arrived at the port of Puerte Colombia. There we had a great deal of difficulty in getting our passports okayed by the Commandante, who claimed that they had not been correctly made out, but who, we secretly felt, harbored a jealousy of Americans, and whose dignity was greatly ruffled because we had neglected to have our papers signed by the governor of Barranquilla.

Our South American experiences were over. We were on the steamer Legaspi, headed for New Orleans, after successfully navigating the Magdalena river for a distance of four hundred miles in an outboard motor equipped, fourteen foot canvas boat.

Advertising index will be found on 3rd last page